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ABSTRACT

The proceedings include: (1) "Communicative Competence Reconsidered," by M. Doushaq; (2) "Scenarios for Enhancing Communicative Competence," by G. Salah; (3) "Oral Style Strategies in EFL Written Discourse: Implications for Teaching College Composition," by O. Atari; (4) "Arabic and English Imperative Structures," by M. Anani; (5) "Simplification and Reduction as Foreign Language Learning Strategies: Implications from Jordanian Arabs Learning English," by Y. El-Halees; (6) "The Stressing of Final Superheavy Syllables by Saudi Learners of English: Implications for the Contrastive Analysis Hypothesis," by M. Younes; (7) "Achievement Testing and Foreign Language Teaching," by A. Abdrabou; (8) "Educational Theory and TESL/TEFL: Where the Antipathy Has Led to," by H. El Fadil; (9) "Linguistic Analysis as an Input to Course Design," by T. Khalid; (10) "Basic Academic Requirements of Foreign Students in Departments of English," by G. Salamah; (11) "On the Notions 'Standard' and 'Prestigious' in Arabic Sociolinguistics," by M. Ibrahim; (12) "Arabicization and the Role of English Language Teaching in Arab Universities with Special Reference to the Iraqi Experiment," by L. Barkho; (13) "Subject-Object Relations and Word Order in Standard Arabic," by S. Suleiman; (14) "Definiteness in Arabic from an Axiomatic Functional Point of View," by S. Hady-Mohamed; (15) "Adjectives, Nouns, and Copredication in English," by J. Bunnaq; (16) "Palestinian Arabic Vowels," by J. Cormick; and (17) "Consonant Assimilation in Arabic: An Autosegmental Approach," by I. Abu-Salim. (MSE)

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Edited by

Issam Abu - Salim Jonathan Owens

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Forward

It gives me great pleasure to write the introduction to the Proceedings of the third annual Yarmouk University Linguistics Conference held April 1-3, 1984. A total of 24 papers were presented, and they engendered a lively and useful debate at the conference. All the papers which we received in complete form have been included, except those which have been published or will be published elsewhere. These are:

Mohammad El-Yasin Ajlouni, Word Order Variation in Classical Arabic, Lingua 65.

Jonathan Owens, Structure, Class, and Dependency: Modern Linguistics and the Arabic Grammatical Tradition, Lingua 64.

Hassan Abdel Jawad, A Linguistic Analysis of Spelling Errors Made by Jordanian University Students, to appear in Abhath Al-Yarmouk.

Mazin Waer, Towards a Modern and Realistic Sentential Theory of Basic Structures in Standard Arabic.

علي أحمد ، دراسات في حرك الوصل بين القدماء والمحدثين ،
مجلة مجمع اللغة العربية الأردني ، العدد المزدوج (٢٥ - ٢٦) ١٩٨٤ .

The articles have essentially been printed without significant editorial changes.

This is the second volume of Proceedings published by Yarmouk University, and we hope to carry on the tradition of the conference and publishing and distributing its Proceedings in the future.

Dr. Mohammad Ajlouni
Acting Chairman
Department of English

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COMMUNICATIVE COMPETENCE RECONSIDERED

Mufeeq Doushaq
Yarmouk University

1. Introduction

During the past decade or so, the period of anti-Chomskian revolution as some may call it, a considerable amount of work, both on the theoretical and practical levels, has been produced concerning the concept of communicative competence and language learning and teaching. In this paper, we are going to reconsider this concept with a special concentration on its relevance to foreign language learning and teaching.

Since Hymes 'On Communicative Competence' was published in 1972, people working in the field of applied linguistics, especially coursewriters, have been fascinated by the call for the communicative teaching of language. Fluency and appropriateness have been given more importance than accuracy or grammaticality.

Despite the many courses designed to meet this new trend of language teaching and despite the efforts to introduce these courses or textbooks to schools in many parts of the world, we feel dissatisfied, if not disappointed, especially with reference to what is going on in Jordan and many other Arab countries. Our dissatisfaction is due to the following reasons: Firstly, we feel that there is still a considerable gap between the concept of communicative competence as a theory and the applications of this theory. The main reason for this gap, as we see it, is that the theory itself is not as comprehensive as is needed for the foreign languages teaching. Moreover, the components of the communicative competence of the foreign language learner have not been established or stated clearly and specifically.

Secondly, there are great gaps in the teachers' theoretical linguistic background. Many of the teachers we have met have not yet heard of what is called 'communicative competence.'

Thirdly, coursebook writers, usually native speakers of the target language, concentrate on the target language expressions without taking into consideration the situation of the native

language or of the learners. This is due, of course, to the lack of an appropriate communicative/functional contrastive analysis. (And often coursewriters do not know the native language of the students - assuming the course is aimed at one language community, which often is not the case).

In this paper we hope to give a more comprehensive analysis of communicative competence and to state more clearly and specifically the basic components of the communicative competence of foreign language learners.

2. The Work of Dell Hymes

Before we introduce our own expanded version of communicative competence, we find it helpful to discuss some of the most important points raised by Dell Hymes in his article 'On Communicative Competence,' (in *Pride and Holmes* 1972). This paper is considered by many scholars as the starting point in the field of communicative language teaching.

2.1. Hymes and Chomsky

Although Hymes's paper is essentially a contribution to the theory of linguistics in particular, it was written as he says, with an eye to an educational problem, that of the "language problem of disadvantaged children." Referring to this problem, Hymes contends that to a great extent programs to change the language situation of children are an attempt to apply a basic science that does not exist, (Hymes 1972 in *Pride & Holmes* (eds.) 1972, p. 269). What he evidently means by this statement is that educationalists and applied linguists and teachers who attempt to apply the findings of linguistics in programmes aimed at solving practical language problems have found that they are not as successful as they could be, because linguistics is not yet capable of accounting for all phenomena involved in language learning and language teaching. Thus it seems as if Hymes is suggesting that anyone who thinks that modern linguistics is a powerful enough science to provide all the information needed for the solution of language learning and teaching problems is deluding himself.

Briefly, Hymes's paper gives us a strong indication that the Transformational-Generative theory of language description is not enough. To justify his position, Hymes quotes the following passage from page 3 of Chomsky's Aspects of the Theory of Syntax:

"Linguistic theory is concerned primarily with an ideal speaker-listener, in a completely homogeneous speech community, who knows its language perfectly and is unaffected by such grammatically irrelevant conditions as memory limitations, distraction, shift of attention, and interest and errors (random or characteristic) in applying his knowledge of the language in actual performance."

In his comments on this theoretical perspective, Hymes says that it is relevant in some ways and that it is important always to have in mind; on the other hand there is a body of linguistic data and problems that would be left without theoretical insight, if such a limited conception of linguistic theory were to remain unchallenged (p. 270).

Our own comment concerning this theoretical perspective is related to the phrase "who knows its language perfectly." From our experience and knowledge of the characteristics of some languages, at least Arabic and English, we pose the following questions: in actual language situations there are many communities with more than one language (bilingual, trilingual) or with more than one language variety (diglossia, triglossia etc). So which language or variety can be considered the language of the community? The next question is what does the word 'perfectly' mean? What aspect of language should it be applied to? For example what 'perfect knowledge' can be attributed to an Arab who knows the phonological, syntactic and semantic aspects of a low variety and who knows only the phonological and semantic aspects of a high variety? Finally, is the technical language of a lecture on medicine or electronics listened to by a layman perfect or imperfect?

Moreover, Hymes argues that the limitations of TG theory appear when the image of the unfolding mastery fluent child

is set beside real children in schools. The theory must seem if not irrelevant, then at best a doctrine of poignancy. Poignant because of the difference between what one imagines and what one sees; poignant too, because the theory so powerful in its own realm cannot on its terms cope with the difference (p. 271).

The TG theory cannot cope with such problems because it neglects the actual and real socio-cultural factors related to the use of language in real daily life situations by all members of the speech community.

Thus we see that there is a great need to take these socio-cultural factors into account both in relation with competence and performance if we are aiming at a successful language teaching.

Hymes sees the TG position as a Garden of Eden view, since in the real world we do not find ideal speaker-hearer in an ideally homogeneous speech community. Again, performance in the real world is not an imperfect mirror in which competence is reflected.

2.2. Differential Competence

Hymes next goes into detail on his question of differing levels of competence in a heterogeneous speech community. In the real world is there one perfect competence? In answering this question Hymes refers to Gazden's study of subcultural differences in language development in the U.S. He reminds us that she found that on all the measures, in all the studies, the upper socio-economic status children, however defined, are much more advanced than the lower socio-economic status children. Such findings mean that the differences between these categories of children and the better opportunities that upper-class children always have at schools are in a sense evident to any teacher anywhere whose work brings him with contact with children with different socio-economic status.

Hymes also argues that the combination of community diversity and differential competence makes it necessary not to take the presence of a language in a community at face value until its true

status has been established. In other words we should refrain from generalizations like "everyone in New Guinea speaks English," or "English is the language of New Guinea," because it might turn out that what we call English is characterized by an extremely small repertoire of items.

2.3. Dual competence

Hymes states that Labov has documented cases of dual competence in reception, but single competence in production and by referring to the work of Albert (1964) in Burundi, he states that there exists a dual competence in production as well. "A peasant may command the verbal abilities stressed and valued in the culture but cannot display them in the presence of a herder or other superior."

In the Jordanian situation we can find examples of both types of dual competence and even examples of triple competence. The linguistic situation in Jordan can be described as 'triglossic.' There are three different varieties; low (uneducated daily language), intermediate (Modern Arabic - language of schools and newspapers) and high (classical Arabic - Quranic). An uneducated peasant can produce only the low variety, but he can understand the intermediate variety when he listens to the news on the radio or TV and can understand the high variety when he listens to Quran recitation. On the other hand, an educated Jordanian can produce the Low and Intermediate varieties and understands all three varieties. A religious leader or clergyman can produce and understand the three varieties.

The question which poses itself now is, since the present theory of linguistics (TG) has so far failed to cope effectively with linguistic problems related to a single language in a homogeneous speech community, how can it cope with a situation with speaker-hearer with more than one competence? Moreover, if this theory is still incapable of solving the problems of native language (L_1) teaching, can it be adequate to cope with problems of foreign language teaching and learning?

These questions and many others show clearly the limitations of any theory which takes into account only the grammatical or

linguistic competence in the form of isolated sentences and neglects the sociocultural and the contextual factors of language description and language use.

2.4. Communicative Competence

Thus we can conclude that the present notion of competence and performance (in the TG sense) is not enough for a comprehensive description of language. Accordingly, the present formulation of the competence-performance dichotomy needs to be overhauled. The first step of overhauling it is to set up a theory of communicative competence of which grammatical competence is only one aspect. In Hymes's definition of competence and performance, the salient contrast is between 'the actual' and the 'underlying.' The term 'performance' is to be used to refer strictly to the 'actual use of language,' the sense in which Chomsky at least claims to be using it.

The result of insisting on the contrast being between 'the actual' and 'the underlying' is a far more general concept of competence than is found in Chomsky (Brumfit & Johnson 1979: 13). Chomsky concentrates on grammatically, strictly speaking "knowledge of the language system." By doing this Chomsky is limiting himself to a narrow concept of competence. A more general concept of competence and a more comprehensive view of language description involves far more than knowledge of grammaticality. "There are," in Hymes's words, "rules of use without which the rules of grammar would be useless." (1972 in Pride & Holmes: 278).

2.5. Sectors of Communicative Competence

According to Hymes, there are several sectors of communicative competence of which the grammatical is one.

Hymes lists four sectors: The first, 'whether or not something is formally possible' is roughly speaking, similar to Chomsky's restricted concept of competence as grammaticality, e.g. 'Ali ate the apple' is possible (i.e. grammatical). 'The ate Ali apple' is impossible (i.e. ungrammatical). The second sector deals with feasibility. A sentence like 'The mouse the cat the dog the man the woman married beat chased ate had a white tail' is grammatically possible, but is hardly feasible. The third sector covers

appropriateness to the context. The speaker-listener's underlying competence includes rules of appropriateness and a sentence can be grammatically possible, feasible but inappropriate, e.g. 'I send you my congratulations on your uncle's death,' can never be appropriate even though you know well that your friend's uncle was very ill and in his nineties and your friend is impatiently waiting for his uncle's death to inherit his great fortune.

The fourth sector concerns 'whether or not something is in fact done.' Something may be possible, feasible and appropriate and not occur. This sector is related to accepted usage, e.g. the double negative in English or the use of present continuous for commenting on one's own active work, 'I'm going to the door' (in the classroom).

In sum, says Hymes, the goal of a broad theory of competence can be said to show the ways in which the systematically possible, the feasible and the appropriate are linked to produce and interpret actually occurring cultural behaviour (Ibid, 286).

3. In our attempt to arrive at a more comprehensive formulation of competence, we are going to depend on two main interrelated matrices: the establishment of a Sociolinguistic Matrix of Discourse Analysis (SMDA); and then propose a model of Communication Interaction (SMCI). In what follows we are going to deal with these two steps and then to conclude with a general framework of communicative competence.

3.1. A Sociolinguistic Matrix of Discourse Analysis (SMDA)

Starting from our belief in the importance of taking discourse into account in the teaching of languages, especially at the level of syllabus design and preparation of teaching material, and since we believe that emphasis in language teaching should move from concentrating on the properties of sentences in isolation to a concern for the use of sentences in combination, we find it is helpful to propose a comprehensive matrix or model of discourse analysis.

This Sociolinguistic Matrix of Discourse Analysis (SMDA) forms an integral component of our comprehensive concept of communicative competence.

In our view, a model designed to form an essential part of a communicative syllabus should take into account the following interrelated areas: firstly, it should give considerable attention to the analysis of linguistic structures and the relations between the different units of the sentence as meaningful units and not as isolated linguistic units, e.g. consider the word 'which' in the following sentences:

1. He lives in the house which stands at the top of the hill;
2. He was driving his car very fast, which was dangerous.

Personal experience has shown that Arab students encounter a serious difficulty in understanding the meanings and analysing relationships in sentences similar to No. 2 above, because they usually think that 'which' goes back to the immediate preceding word as in sentence No. 1. This means that a structural type of analysis could be helpful in understanding and interpreting a message.

Secondly the model should give more attention to text analysis. Concentration here should be given to relations and links between sentences in a text. This area of analysis is concerned with overt, formal linguistic features in establishing the links in a piece of discourse. In other words, it involves linguistic cohesion within the text. The study of grammatical cohesion aims to 'discover the characteristics of a text as distinct from a collection of sentences (Hasan 1968:24). This area of analysis includes, for example, functional notions of linguistic forms such as anaphora and cataphora as illustrated in 3 and 4 below:

3. The man drove the car and it ran over the child ('it' refers backwards to the car. It has an anaphoric reference).
4. It was the car that ran over the child ('it' refers forwards to 'that ran over the child,' or to the car. It has a cataphoric reference).

Thirdly, and most importantly, the model should give more concentration to discourse coherence. In other words it should

emphasize and analyze the links between the sentence(s) and the context or situation. This means that much more attention should be given to pragmatic relations and sociolinguistic factors in the context.

Basically, we are interested in concentrating on the third area, discourse analysis. In other words we are very much in favour of giving more emphasis to 'sentences in use' with an eye on the other two areas since we believe that they are closely related and can be useful in language teaching.

3.2. The SMDA Components

As has been stated above much emphasis is given here to language in context. Hence the SMDA is a model of sociolinguistic interaction and it takes into consideration the following elements: (see fig. 1).

1. Social domain: the social setting of discourse, e.g. the family, friendship, education (school), religion (mosque, church, etc) and employment or occupation.
2. Interlocutor related to the social domain, e.g. parents, friends, teachers, priests, etc.
3. Sociolinguistic variables such as age, sex, status, education and so on.
4. Social situation such as physical setting (i.e. place), time, topic, etc.
5. Social distance; this includes solidarity, intimacy, authority, formality and even physical distance, i.e. space between participants which can be affected by the social distance.
6. Channels of communication, including verbal and non-verbal means of communication.
7. Language variety: whether the language used is standard or regional dialect and whether it has special social features 'sociolect' and/or special features related to the sex of the participant 'sexolect.'

8. Style: style can be described as intimate, informal, formal or frozen (after Joos).
9. Language function(s): this includes the main or macro-functions such as personal, interpersonal, ideational and textual. It also includes other sub-functions or micro-functions such as commands, suggestions, advice, socialization.
10. Relationships: relationships between participants depend more or less on the social domain. For example, within the family, we might find the following relations:--
- | | |
|----------------------------|------|
| child—child (+ equality) | A——A |
| child—parent (- equality) | A——B |
| mother—father (- equality) | A——B |
| or | |
| (+ equality) | A——A |

3.3. Discussion and Conclusion

Having established this integrated model of discourse analysis, we would like to draw attention to the following points: First of all, the list of elements and sub-categories included in this matrix has by no means been exhausted. Many relevant sub-categories can be added especially to categories 9 and 10.

The second point, which is strongly related to the first remark above, is that although this model is considered to be adequate with reference to all social domains, there is no doubt that each domain has some special domain-specific sub-categories (or elements).

The third point is that we employ a system of binary taxonomy ($\pm$ features) which makes the model more precise and more applicable.

Finally, we consider this matrix a necessary background for our proposed model of communicative interaction.

4. A Sociolinguistic Model of Communicative Interaction (SMCI)

4.1. The Model Introduced

This model which is based on the SMDA described in the previous section, is established to help us understand and interpret a message in its actual context. It can also be described as a

more comprehensive model of language description. As can be seen in Fig. 2, the SMCI consists of a number of components which have been assigned $\pm$ features. The basic features considered here are $\pm$ appropriate (including $\pm$ accurate) and $\pm$ successful.

As can be seen in Fig. 2 if all selections have the feature + appropriate, then the message is very likely to be + successful. But if one or more selections have the feature -appropriate (but not -accurate), then the message is more likely to be -successful or at least misunderstood or confused.

In our view, the most important components as far as language learning is concerned, are those labelled language expression and language function. A successful interaction depends to a large extent on the successful matching of these two components. In other words, a successful interaction depends on the selection of language expressions to achieve the intended function.

This conclusion emerges from our belief that one of the basic problems a foreign language learner faces is to find the appropriate expression (form) to convey his meaning. If we consider language expression separately, we find that formal selections, although they might be native-like utterances, might not convey the appropriate meaning or at least might cause misunderstanding or what we call communication breakdown.

The SMCI is a comprehensive model in the sense that it does not neglect any level or aspect of language and it takes into consideration all the necessary elements in the communication interaction. All linguistic paralinguistic, and kinesic elements and some others are accounted for and considered collectively in an integrated social situational context.

4.2. Conclusion

From the applied linguist's viewpoint, any single theory of language description is not enough to be considered as the only adequate theoretical background for the construction of a language teaching syllabus or teaching material. Hence we see that it is not only how members of a speech community speak that

concerns us but also what they speak. Consequently, it is not enough to aim at a native-like linguistic (formal) competence; more emphasis should be given to the development of native-like communicative (functional) competence.

Thus a sequence of +features like the following sequence

phonology	+ accurate	
morphology	+ accurate	
syntax	+ accurate	→ (+ accurate form)
lexis	+ accurate	

does not necessarily yield +successful (message) unless all other features such as setting (place and time), style (formal or informal) etc. are +appropriate. Any feature with a -appropriate will no doubt negatively affect the intended message.

Finally, as has been stated early in the introduction to this theoretical background, one of the main objectives of carrying out this theoretical discussion is to shed some light on the specific components of a general, more comprehensive formulation of communicative competence. Hence, the present sub-section concerning the SMCI forms an important part of this general formulation (see Fig. 3).

5. Communicative Competence: A New Comprehensive Concept

5.1. Introduction

In the light of our discussion and proposed models introduced in the previous pages, here we propose a model of a more comprehensive concept of communicative competence (CCCC).

Since one of the major objectives of this paper is to provide a more comprehensive background for syllabus design and teaching material, we feel that this new concept (the CCCC) will form an essential part of such a background.

5.2. The Components of the Comprehensive Concept of Communicative Competence (CCCC)

Although this model can be useful for both native and foreign language learners, we are more interested here in the development of competence in foreign languages. Hence every single element in this model is important and plays a considerable role in developing this competence, although we cannot claim that all of these elements are equally important.

This proposed model (the CCCC) takes into account five main types of competence and each type consists of a number of integrated or complementary components (see Fig. 3). These main types are necessary if learners or syllabus designers and coursebook writers aim at arriving at native-like communicative competence.

The first component is linguistic competence (LC): the learners are supposed to discriminate and produce the different sounds (phonemes) of the foreign language. They are also supposed to understand the morphological system and be able to use and understand the function of the different types of suffixes and prefixes employed in the foreign language and how to manipulate them to build up new forms. Moreover, they are supposed to know (from our point of view to use and employ appropriately) the grammatical rules of the foreign language such as word order and transformations: producing questions, negative, affirmative statements, etc. Finally, they should have a considerable knowledge of active and passive vocabulary.

Unfortunately, most language teaching programmes, until very recently in some countries and up till now in Jordan, have given great emphasis to linguistic competence. They have stressed accuracy on the cost of fluency and appropriateness.

The second component is para-linguistic competence (Para-LC). This type of competence consists of two main components: verbal and non-verbal. As far as the verbal component is concerned, learners are supposed to discriminate and produce as accurately as possible different types of word and sentence stress and to understand stress both on the word and sentence levels.

The intonation system of the target language is of great importance and it plays an essential part in communication interaction. The permutation and combination of these supra-segmental phonemes is one of the most difficult areas of foreign language learning, both on the productive and receptive levels.

The non-verbal component of para-linguistic competence is concerned with kinesics, proxemics and eye contact. Kinesics

involves facial expression, head movement, body posture and movement, etc.

Proxemics is concerned with spatial relationships. This is also strongly related to what we call textual competence, as will be seen later.

Eye-contact involves eye movement, eye-direction and duration of direct and indirect contact.

The third component of our model is contextual competence. This type of competence involves three main dimensions: the physical dimension which involves space and setting of speech act, the psychological dimension concerning predisposition, emotional state, feelings and biases, and the social dimension which involves social values and characteristics.

The fourth component is sociocultural competence. An adequate sociocultural background is essential for the development of communicative competence.

The fifth and final component is what we call the empathic competence. Katz (1963: 93) defines empathy as a sort of 'vicarious introspection.' It is a capacity to put the other person, with all his or her inner characteristics, into your shoes and to understand what that person is feeling by feeling those same things inside yourself (Scheidel, 1975: 394). Thus to empathize, according to Scheidel, is to discover all the available pertinent information about the people who will be receiving and interpreting your intended message. To do this well you must get to know them well.

Empathy is an indispensable skill for foreign language learners especially for those who intend to enter a foreign culture.

There are several stages or steps to empathy (Scheidel, Ibid: 395). An empathic person is first and foremost perceptive, alert to what may be subtle cues, recognizing that in the culture they may not be subtle at all.

Second, the empathic person is able to withhold judgement or the drawing of inferences. He must avoid jumping to unwarranted conclusions.

Third, the empathic person is able to control presuppositions (able to know what the sender of a message means).

Fourth, the empathic person comes up with good hunches, good explanations and good inferences about what things mean and count for.

Finally, the empathic person is aware of communication breakdown, misunderstanding and confusion.

According to John Parry, quoted by Scheidel (Ibid 396 -8), there are seven causes of communication breakdown:

The first cause is channel overload. When we try to communicate too much, the eventual result is confusion. Also channel underload can cause bewilderment.

The second cause is distraction. Foreignness itself is a distractor. Foreigners usually speak with a recognisably different accent. From the foreign language learners viewpoint foreigners speak more clearly than native speakers. Many students prefer to be taught by a non-native speaker of the target language.

The third cause is the inability of receivers of a message to fill in unstated assumptions. If all assumptions had to be explicit, communication would be impossible. One should avoid being misunderstood by giving as much information as possible.

The fourth cause of breakdown emerges from the different ways people experience the world, e.g. different interpretations of the concept of 'freedom.'

The fifth cause is related to the elements of experience which are taboo and have been repressed.

Parry's sixth cause of breakdown is that of confused or confusing presentation of messages. We may not be able to anticipate that our planned presentation will be confusing to those in an alien culture. Often we lack the necessary knowledge of the ordinary rhetorical forms, the expected patterns of organization and presentation, and the favoured forms of argument.

Parry's seventh and final cause of breakdown is simple - the message does not arrive. Absence of familiar channels or

ignorance of alternative channels plagues the intercultural communicator. One may utilize less effective means of getting messages through when more effective ones are available because one is not aware of them.

5.3. Conclusion and pedagogical implications

In this section of our study we intended to establish a clear and more comprehensive theory of communicative competence. For this purpose we established two main models - a matrix of discourse analysis and a model of communication interaction. Finally we established a more comprehensive concept of communicative competence.

The pedagogical and teaching implications of this general theory are numerous and various. Here we are going to consider some of these implications briefly.

Generally speaking, there is no doubt that the theory has shed light on the importance of many aspects in the teaching learning situation. It has shown that an effective language learning should take into account many factors and not rely completely on the formal possibilities of language. Moreover a comprehensive theory of communicative competence indicates clearly that language alone, as traditionally defined, does not necessarily or always form the substance of communication, as our traditional structural dominated approaches would suggest.

Taken from the learner's or syllabus' viewpoint, the theory has to be considered in the light of the learner's needs. So much of language teaching depends on the matching of methods to aims. So, the aims of some courses may not be full communicative competence, or may include only limited aspects of communicative competence. However, even courses which do not stress communicative competence in its fullest sense might well be enriched by one or more notions of this theory. In our view, the more our aims have to do with teaching people not only to understand, but also to produce in communicative situations, the more the implications of the theory become clear. Personal experience has shown that learning the structures of the the language (i.e.

developing the linguistic competence only) can never be sufficient to develop the communicative ability either on the receptive or the productive level. Starting from this assumption, the theory states clearly that the learners we are preparing for communicative situations cannot be regarded as islands or as 'Strevens puts it, simply as 'acquisition devices,' but as human beings who will be operating in the context of a culture and in communication situations for which this culture has rules and strategies. Specifically speaking, if we aim at developing communicative competence, then all aspects of this competence (see Fig. 3) should be taken into account. We have to start by considering the culture, and what that implies for anyone who is foreign to it, the particular situation in which our learners are going to operate and these aspects of the general culture which impinge upon them, the language functions expected of those who operate in those situations, the varieties of language appropriate to them, the grammar which coincides with the functions engaged in, and the kinesics and paralinguistic aspects of communication appropriate in the situation (see Figs. 1 and 2).

The question which can be posed now is related to what is called 'the creation of relevant situations.' Is the classroom a suitable and adequate environment for the creation of such communicative situations? If it is not, what are we going to do about it? Part of the answer may be with educational technology, on which we can rely to some extent to evoke the sort of realities we may wish or need to create.

Fig. 1 - Sociolinguistic Model of Discourse Analysis (SDA)

Social Domain	Interlocutor	Socio-linguistic Variables	Social situation	Social Distance	Channels of Communication	Language Variety	Style	Language Function	Relationships
Family	Parents	Age $\pm$ same	Setting	$\pm$ great	$\pm$ linguistic	$\pm$ standard	Intimate $\pm$ familial	<u>Idiosyncratic</u> (experiential logical)	A $\leftrightarrow$ B
Friendship	Friends	Sex $\pm$ same	$\pm$ appropriate	$\pm$ superior	$\pm$ verbal	$\pm$ idiolect	Informal		A $\rightarrow$ B
Education	Teachers	Status $\pm$ high $\pm$ personal	Time $\pm$ appropriate	$\pm$ formality $\pm$ intimacy		$\pm$ sociolect $\pm$ sociolect	$\pm$ casual Formal	<u>Interpersonal</u> (Socialization, greetings, invitations, offers, request, etc)	A $\rightarrow$ B
Religion	Priests	Rules $\pm$ integrated	Topic $\pm$ familial $\pm$ business etc.			$\pm$ special jargon	$\pm$ business Prose $\pm$ literary $\pm$ prosaic	<u>Textual</u> cohesion coherence	
Employment	Employer	Education $\pm$ high $\pm$ same Activities $\pm$ controlled Participation active							

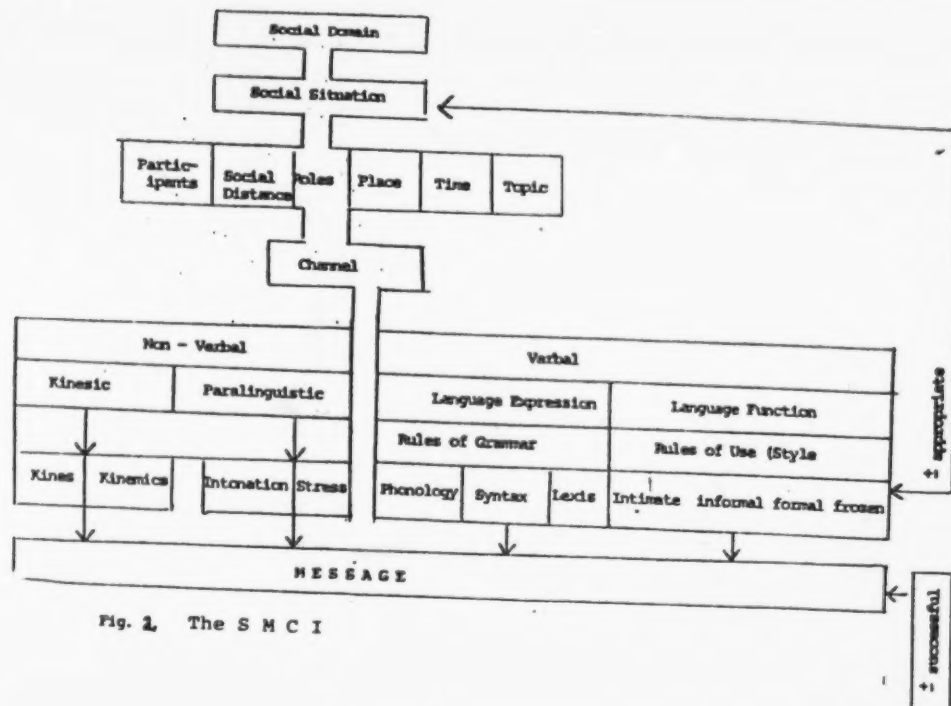


Fig. 2. The S M C I

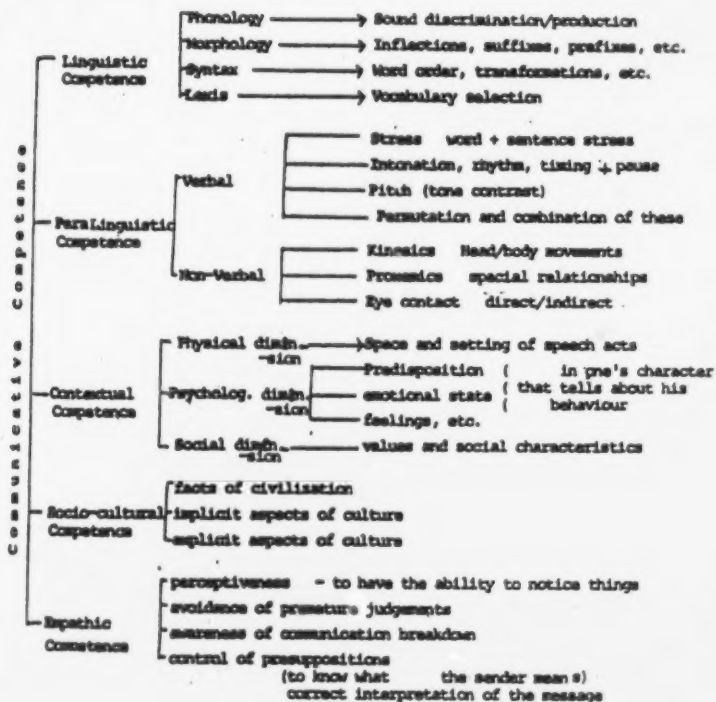


FIG. 3. A Comprehensive Concept of Communicative Competence (CCCC)

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SCENARIOS FOR ENHANCING COMMUNICATIVE COMPETENCE

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Prior to the middle and late 1970's, teaching methods had focused almost exclusively on the teacher, who was restricted to the method which supposedly provided the answer to all pedagogical and most curricular questions. Textbook writers and course developers instructed teachers in what to do and how to do it (Altman, 1981:10).

Most methods of second-language instruction considered language as a product and not as a process. For example, the audio-lingual method, which is based on structural linguistics and behaviorist psychology, makes the assumption that all learning (including language acquisition) is a matter of conditioning. Habits are formed through responses to external stimuli. Through mimicry and memorization and through the repetition of patterned drills, one was expected to learn a second or foreign language (Newton, 1970:18).

Beginning in the late 1950's and continuing through the 60's and 70's, Noam Chomsky (1965) strongly criticized structural linguistics, claiming that habit formation is irrelevant for language learning. He emphasized that language learning is a creative process requiring cognitive growth rather than a response to an exterior stimulus. His theory for the derivation of surface structure from deep structure through transformational rules, as well as his emphasis on competence rather than performance, had considerable impact on the thinking of applied linguists and methodologists.

As a result of the generative grammarian's view that language is rule-governed and language learning is a natural creative process, teaching methods in the 1970's began to shift focus from the teacher to the learner. Corder (1977) maintains that in language teaching, the learner is being prepared to participate in a different social group; therefore, he/she avoids communication

due to the fear of failure to fulfill his ends. He adds that linguists and sociologists started to call attention to the sociological dimension of language, i.e., to the way language behavior is responsive to various social situations.

Focus on the social dimension led to an enhanced concern with the role of the learner, his needs, attitudes and motivation, personality, and his learning strategies and styles. The view of language as a creative and natural process eventually gave rise to the distinction between language acquisition and language learning. Krashen highlights these two notions in his Monitor Model (1978:1).

Krashen maintains that second-language acquisition is an implicit process similar to what children experience in acquiring first language. For acquisition to take place, he adds, the learner needs to interact with the language spontaneously and naturally without focusing on the form of messages. Conscious learning, or monitor buildup, is explicit, however, and focuses on linguistic form rather than language use (Krashen 1981:1-2).

As a result of the change from teacher-centered to student-centered methodologies, and in response to Hymes' argument (1970:14) that there are rules of grammar which would be useless without rules of use and his notion of communicative competence, many innovative methods based on these principles have come to the fore over the last decade, for example, Asher's Total Physical Response (TPR), Curran's Community Language Learning (CLL), Di Pietro's Strategic Interaction, (SI), and Gattegno's Silent Way (SW). These methods have many features in common. Perhaps the main feature that they share is an effort to relate second language learning more closely to the cognitive and imaginative powers of the learner. In other words, they seek to involve the student more fully in the instructional process, making more active use of the student's mental powers than have traditional methodologies (Newton 1979:21). Another feature of these methods is that the teacher acts as a facilitator for learning. The students enjoy a democratic (Laforge 1975:19), friendly atmosphere,

free from coercion or dominance, which encourages them to engage in receptive rather than defensive learning (Stevick 1976:109).

The focus of this paper is on Strategic Interaction Method (SI).

Strategic Interaction (SI), a student-centered method pioneered by Robert J. Di Pietro, is based on scenario and role-playing in the second language classroom. The goal is to help learners communicate in the target language spontaneously through pedagogical treatment in real-life situations.

The Three Dimensions of Conversational Discourse:

In SI methodology, three dimensions of conversation are recognized, subject to analysis and open to pedagogical elaboration:

1. The Informational Dimension, in which conversations are viewed as delivering referential meaning; this dimension includes the artifacts of language, i.e., the grammatical structure, semantics, and speech functions.
2. The Transactional Dimension, by which participants make use of language to motivate actions in their favor; what is said by the participants is looked at as the implementation of strategies, protocols and counterstrategies.
3. The Interactional Dimension, deals with how conversations reflect the performance of roles of various types, such as a curious neighbor or an obnoxious driver (Di Pietro 1981).

Classroom Procedures for the Implementation of SI:

1. The phases: time in the classroom is divided into three phases called: a) on-stage, b) off-stage, c) debriefing.

When students are performing in dialogs, they are "on-stage", i.e., they are exercising their competence in the language. In doing so, they are open to evaluation. During the "off-stage" phase, students are planning the scenario, acquiring the skills and information to perform by discussing and consulting with the instructor. After performance, a portion of class time is reserved for debriefing. During this stage, students analyze the

undertaken. The four scenarios given below were developed by the researcher.

The Four Scenarios

1. Smoking on the Plane/Bus/Train, (S) henceforth.

The setting is on an airplane where the seating is open, with no separation between smoking and non-smoking sections. Of two travellers seated in the same row, one is a smoker and the other is not. The smoker lights a cigarette. Develop the exchange that would occur between them.

2. Dinner at a Restaurant, (R) henceforth.

A foreigner goes to a restaurant for dinner. The waitress shows him to a table and gives him the menu. The foreigner looks at the menu but does not understand anything. When the waitress comes back for his order, he points to one item on the menu. When the food comes, he discovers that it is fish which he is allergic to.

a. How would the foreigner react?

b. How would the waitress react?

3. Picnicking on Private Property, (P) henceforth.

Some friends agree to go picnicking. In the morning they pack their food, drink, and games. They walk for a long time, then stop at what looks like a public park. They sit at a picnic-table and start unpacking while each one tells the others what he/she has brought. They have much fun but suddenly the woman who owns the property approaches them. She has been troubled by vandals who have done much damage to her property.

a. How would the landowner react?

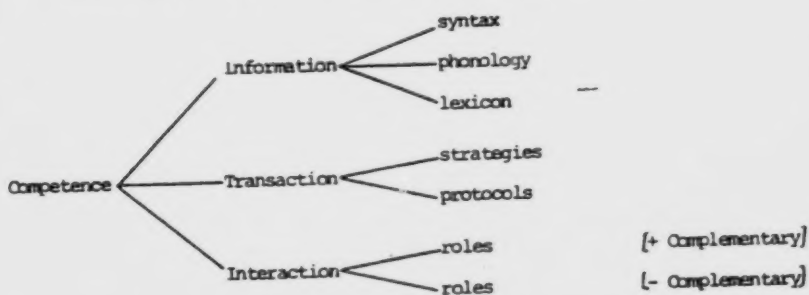
b. How would the picnickers react?

4. The College Major Scenario, (M) henceforth.

After finishing high school, Ahmad is very excited at the idea of going to college. As he fills the university application form, his father approaches him and asks him about his favourite subject. Ahmad says that he is interested in sociology. His father who considers social science as trivial and has great respect for

Once the situation is determined, students are asked to form groups to develop the dialog on the topic at hand. During the on-stage phase of instruction, students stand before the class and play their parts. Of course, each side must anticipate the various options that the other side might take. Thus, the natural way in which conversations usually develop is imitated in the classroom.

A summary of SI theory can be described as follows:



roles + complementary: buyer/seller

roles - complementary : window shopper/seller

Fig. 2. Summary of SI Theory

This means that conversation is continued in the [+ complementary] roles whereas it is discontinued in the [- complementary] ones. .

Sequencing of the Scenarios According to Complexity

Discourse can be both verbal and non-verbal. People usually use kinesics, proxemics, and eye-contact as means of communication in combination with language. People who are learning a second language need to use it in everyday life to fulfill their needs. SI, therefore, seeks to enable students to acquire the transactional, interactional, and artifactual dimensions of language use. Conversational discourse in a foreign language classroom reflects

varying degrees of complexity for the learners. These degrees of complexity may be programmable in a strategic interaction methodology.

Complexity here refers to verbal output, i.e., it is hypothesized that the more creative verbalization the learner needs to do, the more complex the scenario will be. Less complex scenarios should not demand much creative verbal language use, but should allow the learners the option of resolving a challenge through non-verbal interaction and formulaic or routinized utterances.

Measures of complexity in discourse are important because they should help both teachers and learners in second language teaching/learning situations.

Criteria for Scenario Complexity

1. It is hypothesized that scenarios with characteristics at the less verbal end of the continuum will be less complex.
2. A second measure of complexity is degree of contextual constraint. It is easier to communicate in a constrained context than in a less constrained one.
3. A third measure is the degree of formulaic language required. In routinized scenarios there are limits to the options for using language. An example of this is greeting such as "hello!", "hi!", "How are you?".
4. A fourth measure is that the greater the amount of artifact or grammar required to resolve the challenge of a scenario, the more difficult it will be.
5. A fifth measure for complexity is that the more vocabulary and technical terminology a scenario needs, the more complex it will be. For example, an argument between a student and a professor on certain points or ideas during a lecture is more difficult than one where everyday terms are used.

Method of Investigation:

In order to assess the extent to which the above factors influence scenario complexity, a two-stage investigation was

physical science gets angry and tries to persuade his son to change his mind in order to become either a doctor or an engineer. How would the father react?

In stage one the scenarios were presented in prose format to ten doctoral students in linguistics at the University of Delaware. They were asked to sequence the scenarios from least complex to most complex using the criteria.

The second stage of investigation involved the actual implementation of the four scenarios to four classes of EFL students.

Rating Results

Five raters rated scenario No. 1 (S) as the least complex, three rated No. 2 (R) as second in complexity, four rated No. 3 (P) as third, and eight rated No. 4 (M) as the most complex.

This sequence was compatible with that set by the researcher. This rating indicated that scenarios No. 1 and 4 were easily ranked by the raters, while 2 and 3 were more controversial.

Stage Two

Questions to be explored in this part of the study are:

1. How does communication develop in the SI classroom?
2. What kind of features index complexity in a scenario?

To answer the above questions, the researcher conducted study sessions at The Center for English as a Second Language of Delaware Technical And Community College in Wilmington, Delaware. All sessions were videotaped, transcribed and analyzed.

Subjects: A student survey was developed and administered to the 52 students who participated in the study. Their composition was 24 males and 29 females distributed on four levels: pre-technical, or most advanced, advanced, intermediate and beginners. They come from 25 countries and speak 12 different languages. Their ages ranged between 40 and 18 years.

The following measures were used:

- a. Mean length of utterance.
- b. Communication strategies, verbal and non-verbal.

strategies used by different groups, and discuss some of the artifactual errors made by the learners.

The Dialog with Options

Dialogs between different persons usually have a variety of possible consequences. In the SI method, classroom dialogs are constructed to fit the various developmental streams they may follow. Thus, students are led to expect different reactions to what they may say and match the appropriate language to the situation. Even a simple request, such as "Mind if I smoke?" can stimulate, in response, a number of options:

Not at all	Well, this is a non-smoking section	If you must,	I wish you wouldn't
------------	--	--------------	------------------------

Fig. 1. Options for: Mind if I smoke?

To which the requester also can react in several ways:

Oh, I'm sorry, I didn't know.
I'll go outside, then.
Well, I really need a smoke.
etc.

There is a strategy underlying each utterance. This strategy is used by the speaker to assert a certain stand or opinion.

The Scénario:

An effective way to promote learning through conversation in the classroom is to create scenarios designed to encourage students to react to specific problems in order to solve them in a dramatic way. The scenario technique is an effort to simulate real-life by creating a situation which stimulates a decision-making process through communication. The best way to insure dramatic tension in the scenario is to take them from real-life situations; for example, the mother who catches her child stealing cookies or candy while the doctor says that sugar is bad for the child's health.

- c. Transactional strategies.
- d. Embedding depth of clauses.

Conclusions:

From the results of the data, it emerged that:

- a. Scenario S is the least complex of the four scenarios because its problem can be resolved almost entirely through the use of non-verbal communication NVC.
 - b. Scenario R follows in complexity. It is contextually constrained and dependent on formulas and protocols such as "May I help you?". "What would you like to eat?" or "What would you like to drink?".
 - c. Scenario P is the third in sequence. The artifactual dimension posed some difficulty for the learners.
 - d. Scenario M is the most complex because it is "open-ended" and depends on technical terminology.
1. Advanced students appear to resolve simple scenarios in a simple way, and use complex ways in complex scenarios. One group in the most advanced level resolved scenario R non-verbally, whereas, the same group went beyond the episodic feature in scenario P and turned it to nonepisodic, so did one group for S scenario.
 2. The concept of time is acquired late. Students, at all levels, had difficulty in understanding the concept of time in the phrase, 'She has been troubled by vandals who have done much damage to her property' (in scenario P). Students, at all levels, believed that the picnickers themselves were the vandals. Relating a past experience to a present one appeared to be beyond their competence.

When native speakers rated these scenarios, one of them gave it a one in complexity; i.e., he considered it the easiest scenario. This has an implication for second/foreign-language learning. When native-speaking instructors set the syllabus for second/foreign-

language learners, they must bear in mind that the notion of time may be especially complex, and thus present particular problems.

3. The scenario setup is a feature of difficulty.

There were no problems in the presentation of scenario S or R. Students, at all levels, did not encounter any problem in understanding their setup. Beginners appealed for assistance from peers who spoke their native language. Scenario P presented a different picture. However, the setup itself was very difficult for all levels. Two beginners were frustrated, started to cry, and wanted to quit. Bilingual dictionaries were seen for the first time. There was much more need for peer assistance in deciphering the setup at all levels.

When the setup follows an order of difficulty and the input is comprehensible, learners tend to be relaxed, thereby lowering their affective filter. As a result, acquisition should be enhanced (Krashen 1982:9). Schachter (1983:180-181) maintains that "if the learner does not receive comprehensible input, language learning simply will not take place".

Scenarios S and R were not challenging for the advanced students. It seems that they did not learn a lot from either. Scenario P was beyond the competence of the beginners because of the artifactual dimension as well as its setup. It was challenging for the intermediate and the advanced groups. The most advanced revealed their competence in the interactional and transactional dimensions. Scenario M was too far beyond the beginners' competence. Several groups reacted by avoiding the challenge, but those groups that chose to confront the challenge reported having learned a great deal from the resulting interaction.

The presentation of complex scenarios to advanced learners is highly recommended because such scenarios compel students to think and struggle with the language. Reflection is crucial here because it is the best way to help make learners communicatively independent, responsible, and creative. When learners are faced with a challenge, they have to depend on themselves to resolve it. Responsibility here is in the sense of a drive. It drives the

learners to be alert, mentally active, and resourceful; otherwise they will not achieve their ends.

While high anxiety is detrimental to learning, the proper amount of what Leontiev (1981) calls operational tension may be necessary for acquisition to take place. Such tension provides learners with the motivation to confront the challenge. He maintains: "Operational tension is connected with the necessity of carrying out a particular activity: it allows a person to 'settle into' that activity, and always leads to the best possible performance. A driver in a rush hour, a pilot at landing, a teacher in his classroom - they all experience a state of operational tension."

This example occurred in group 2 at the most advanced level
(019) in scenario S:

S : (lights a cigarette).
NS: (coughs and pushes away the smoke with hand then says):
Hi!
S : Hi!
NS: My name is Lina.
S : My name is Don. How are you?
NS: Fine, how are you?
S : Fine.
NS: Where are you from?
S : I'm from Venezuela, and you?
NS: I'm from Jerusalem.
S : Oh, Jerusalem! Nice country. (He smokes very nervously).
NS: You look nervous.
S : Yes, I am.
NS: Do you mind if I ask you a question?
S : I don't. What do you want to ask?
NS: *Why you are nervous?
S : I can't stand travelling on a plane.
NS: That's all?
S : Yes.
NS: *Can you put off your cigarette, please?
S : Why
NS: I have allergy. I can't stand smelling cigarettes.
S : Yeah. I'm sorry (extinguishes cigarette).

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ORAL STYLE STRATEGIES IN EFL WRITTEN DISCOURSE:
IMPLICATIONS FOR TEACHING COLLEGE COMPOSITION

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The two modes of language, speaking and writing, exhibit distinctive features of two strategies of communication. Speaking exhibits features of Oral Style strategies which involve face to face interaction between the speaker and the audience and the use of paralinguistic cues such as tone of the voice, intonation, prosody, facial expressions and gestures. Writing, on the other hand, exhibits features of the literate style strategies which involve decontextualisation due to the separation in time and place between the writer and the readers. Thus, writing requires the use of lexicalization and complex syntactic structures to connect the propositions in the text and to provide the background information and details for the reader to enable him to ascertain the writer's intended message (Kroll 1977, Ochs 1979, Tannen 1980).

The two strategies of communication, however, are applied in both modes of the language respectively, but one genre of discourse requires a more frequent application of one strategy than the other. For instance, casual conversations and informal letters require more frequent application of oral style strategies while lectures and expository prose require more of the literate style strategies (Tannen 1980).

This paper investigates the stylistic features that impede the efficiency of communication in writing. Fifteen essays were collected from a sophomore class taking a language course for reading and essay writing at Birzeit University. These students must have taken two other language courses with heavy emphasis on the reading skills and paragraph writing. The three courses are required from all students in the University, and those who intend to major in English must obtain a minimum average of 75%.

It is my contention that inexperienced student-writers tend to extensively apply strategies of communication typical of the spoken mode of language in writing. Thus, their written products

often have no connectives between propositions or specifications. Therefore, the reader finds it difficult to ascertain the writer's message. The extensive application of oral style strategies in writing can be attributed to transfer from Arabic conversational styles and written Arabic style.

It is also my contention that the students' knowledge of oral style strategies can be utilised in speech as well as in writing classes to facilitate the transition to literacy necessary for expository prose. I shall therefore propose two classroom procedures for the purpose of facilitating the transition to literacy at the end of this paper.

The Choice of Data

The data for this study consist of fifteen essays written by sophomore students in one language course at Birzeit University. As mentioned earlier, the course emphasizes reading skills such as skimming and scanning and essay writing. The essays collected are based on a novel required for outside reading. The novel is 'Lord of the Flies' by William Golding. The students in this class were asked to write an essay guided by the following questions and suggestions: "The actions in the novel center on three main figures - Ralph, Piggy and Jack - and you should get as clear a picture as possible of the character of each, and of the kinds of actions with which each is associated. How do these three characters interact among themselves and with the other boys? What does each of these three characters represent in terms of the novel's political message?" (Quoted from a handout given to the students).

I have selected these essays because the topic is not essentially imposed upon the students as is the case in most writing classes. The other reason for this choice is the formal nature of the essay. Since the essay is formal, it is expected to have distinct features of the literate style. Consequently, it becomes easy for the researcher to characterise any other features that are not typical of the written mode of the language.

Although the students taken as a sample for this study are all native speakers of Arabic, my data is limited to the written English essays. The justification for the exclusion of Arabic data lies in the fact that the genre of discourse such as the essay, lectures, informal conversation, etc., determines the application of oral or literate style strategies. It is not the language used that determines the strategy.

Method of Analysis

My analysis of the data is sociolinguistically oriented. I look at the essay as a communicative event which involves the writer, the reader and his expectation as to what should go in the text and the message. Therefore, I investigate the lexical and syntactic structures in the written text that leave the burden of figuring out the missing background information and the relationship between the textual propositions to the readers. Hence, the unit of analysis is a stretch or chunk of discourse which may consist of one T-unit or of a series of T-units. A T-unit consists of one main clause and at least one subordinate clause attached to it.

Guided by the findings of research on spoken and written discourse conducted by Chafe (1978), Kroll (1977), Ochs (1979), and Tannen (1980, 1981), I posit two questions as my guidelines. First, where in the text has the student-writer assumed that the reader knows all the background information not provided for in the text? Second, what textual and syntactic structures has the student-writer used that are more appropriate in the spoken language? Then, I state the stylistic feature that is more typical of spoken language, of which I give an example from the text and explain why that feature is more appropriate in spoken language. My analysis and the findings of this analysis are thus done in one step, altogether.

The following are the recurrent features of conversational style in the texts under investigation:-

1. The relationship between the propositions in the texts is not developed. There are no connectives used to join one proposition to the other.

Example (Text No. 11, p. 1)

"There are some boys who escaped from the war, they used to have meetings, the one who wants to speak must have the conch, this symbolises that the boys have a sort of democracy between them, and a sort of respect to the person who is speaking...."

The propositions included in the text are:

"the boys from the war", "the boys' meetings", and "the conch as a symbol of democracy." However, the text-writer assumes that the reader is capable of figuring out the relationship between the three propositions. The writer did not provide the cohesive lexical or syntactic links necessary for the reader to see the logical sequence of propositions in the text. Chafe (1980) in his study on the spoken and written language introduces the concept of "fragmentation" of ideas as a distinctive feature of spoken language; he defines "fragmentation" as "the stringing together of ideas or idea units without connectives." The text above exemplifies this phenomenon of idea fragmentation since the connectives are missing. Gumperz, Kaltman and O'Conner (in press) in an article on spoken and written language discuss thematic cohesion and point out "that elements in a text must be tied to each other (or disconnected from each other) in such a way as to signal a continuously developing theme."

2. The opening section of the written text often has a global statement irrelevant to the main thesis of the text.

Example (Text No. 2, p. 1)

"Life without rules is nonsense, human beings can't live without rules because it arrange their relation between each other and with animals. If there are no rules, or the rules are broken by each one, the evil will increase and the destruction will be the end...."

In addition to the fact that such opening sections with such global statements shock the hyper-literate people of societies that adore the slogan "Stick to the point", they indicate that

the student-writer has come to the writing task with no clear vision of the constituent parts, which are its message, the reader and the writer. Consequently, the written products will suffer from a lack of specifications and details necessary for guiding the reader.

3. The extensive use of demonstratives like "this", "these things", etc., and other vague elements like "sort of", and "so on".

Example (Text No. 6, p. 3)

"...This represents Piggy's cupidity. This clears the operation of using rules and it is a kind of democracy...."

The use of the demonstratives in the above text implies heavy dependence upon the context or the environment of speaking or writing. Bernstein (1964), Ochs (1979) and Chafe (1980) enumerate these deictic elements as devices associated with speaking. The demonstratives used imply the writer's involvement with a projected interlocutor - someone who is in the writer's presence. Chafe (1980) identifies involvement with the context with the spoken mode of language. The experienced writer uses nominalized modifiers instead of the demonstratives.

4. Use of parallel constructions due to coordination and lack of subordination of ideas and structures.

Example (Text No. 7, p. 1)

"...Ralph was worried about the boys, he always thinks in a way of rescuing them, he thought that he was responsible for them, he used to treat them good...."

"...Jack was strong, he was the chief of the hunters, he inforces his rules by commanding them, his first aim was to have meat to eat, he was always showing them ... (illegible word) and he was the stronger one of them...."

The student-writers produce coordinated structures because they don't feel pressed to develop the relations between the propositions for the reader. They assume that the semantic relationship between one proposition and the other is quite obvious. The absence of the subordinate clause deprives the text of the causal

relations between its proposition. Sacks (1972) gives a classic example of the stringing together of propositions without accounting for the implied semantic and pragmatic relations through cohesive links. His example is:

"The baby cried. The mommy picked it up." The hearer uses the context, lexical knowledge and a general principle of interpretation to make sense of the sequence.

Ochs (1979) treats parallel structures as an exemplification of conversational style, and points out:

"that conjunction is more common than subordination in this type of discourse..."

5. Repetition and the shift to narration without an explicit connection between the narrative text and the preceding proposition.

Example (Text No. 6, p. 3)

"...When Piggy went to get his glasses from Jack he took the conch with him to clear that he has the right, but here was the end of the conch which represented the rules, and it was the end of Piggy who respected the rules and for the interest of the boys. Therefore, the end of struggled conch was when Piggy went to Jack to get his glasses...."

The text has a combination of features that are not typical of written language. The predominant feature is repetition. The "conch" as a symbol of rules and laws gets repeated several times in the text. Barbarah Coch (1980) in her analysis of a selection of standard Arabic texts explores repetition as a distinctive feature of written Arabic texts. She claims that repetition serves the function of making the main point of the text. The Arabic writer, she states, repeats the most important point instead of explaining and accounting for it. She further claims that repetition in Arabic texts originally comes from the Koran. In the Koran, the truth value of sentences can't be questioned, and thus repetition is one discourse function in Koranic texts. In other cultures, she adds, the important point is well made only if the writer explains it and elaborates on it to convince the reader.

The other feature in the preceding text is the shift to narration. Narration occurs in both modes of the language, speaking and writing. However, in these texts narration includes reference to action and activities rather than states and objects. The student-writers of these texts get involved with the events of the narrative as if they were participants in a conversation. They do not offer an analysis of the main point of the story. Moreover, they do not explicitly state the reason for placing the narrative text immediately after a certain statement or proposition in the written text. Such propositions made before the narrative texts are virtually conclusions rather than topic sentences. Thus, the reader of these texts gets the impression that the writer is interested in narrating a story instead of making a point to support his thesis statement which he made earlier.

Implications and Recommendations

In order for the student-writer to avoid the extensive application of conversational or oral style strategies in formal academic writing, the teachers should be familiar with the writing process as an act of communication involving the writer, the reader and the messages. Furthermore, the teachers should be aware of the distinctive features of literate style strategies and oral style strategies and the domains of their application.

Before I propose two classroom procedures for the writing teacher, I want to call attention to a few points to be taken into account in the writing class. First, I recommend that the student-writers be trained to write in the less formal styles of writing in preparation for the written essay. The students acquire their spoken language through styles beginning with the least formal styles of speaking and ending with the most formal styles. Shuy (1981) reminds us of the need to allow the student-writer to go through the natural writing acquisition stages, and to practice writing in less formal styles and then move on to the essay writing. The school essay, he points out, limits the student-writer to only one type of reader, usually the teacher and to a limited range of language functions such as explaining, defining,

comparing, etc. Thus, the other language functions like complaining, requesting, apologizing, protesting, etc., are neglected. If the students are allowed to practice writing in the less formal styles, then the targeted readers will vary because the language functions accomplished vary. Thus, the students will be pressed to include all possible details and do the necessary elaborations on the topics in the texts since they do not share the same background information with all those readers. The problem with the school essay is that the students assume that the reader, the teacher in this case, will figure out the intended message since he shares a great deal of his knowledge with the student. Moreover, since the students are not required to write in the less formal styles of writing, they do not develop the competence of distinguishing between the lexical and syntactic elements appropriate in writing and those that are appropriate in speaking. They tend to use the same register in the two modes of language with no sensitivity to the stylistic variation in language.

Building on the above mentioned principles of guiding the student-writer to make the transition from orality to literacy, I propose two classroom procedures. First, in the speech class, the students should be asked to narrate stories of personal interest to the class, and while the teacher is listening, he should interrupt the narrator by asking for more specific information or requesting more details and for the use of lexical and syntactic elements to lessen the amount of dependence on the context or the environment of the class. For instance, if the student uses demonstratives like "this", "these things", the teacher should ask him to use lexical items instead. If the student does not elaborate on a certain topic and attempts to move on to another topic, the teacher should ask questions that press for elaboration on the first topic. Thus, the student will become more topic-focused in his narrative.

The other classroom procedure is applicable to the writing class. The teacher in this class can begin a dialogue in writing with his students. Instead of correcting the mechanics of writing and the content directly, the teacher can make his comments in the

form of questions which will elicit the necessary details and comments from the student-writer. The teacher asks questions in writing about the text and the student rewrites the same text, but this time with more specifications and details.

This process should continue for the whole semester until the student becomes aware of the significance of elaboration and of the inclusion of all details regardless of who the reader is. This procedure may be time-consuming, but it is worthwhile trying since it can produce rewarding results.

In conclusion, the traditional emphasis put on the form of the written products needs to be supplemented by a sociolinguistically-oriented analysis of the essay as a communicative process rather than a static product. Essays that are error free in the traditional sense are not necessarily communicative.

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ARABIC AND ENGLISH IMPERATIVE STRUCTURES

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Traditional studies of Arabic imperative sentences are unsatisfactory in two major respects; they fail to distinguish between different types of imperative sentences and they study notionally such individual grammatical categories as fi^cl ul-ʔamr "the imperative form of the verb" and al-munaada "the vocative" without considering each as a part of a system and functioning by reasons of relationships within that system (Cf. Abdul Hamid, 1963 and Abbas, 1980).

Furthermore, the vocative is often given as a primary sentence type (cf. Abdul Hamid, 1963) and the imperative is relegated to a minor position. Also subordinated are the categories of negation, which have formal exponents.

The purpose of the present article is to study the variety of Arabic imperative sentences seen as the result of interrelated set of choices from a limited number of binary systems and to account for their occurrence in situations. Some attempt will also be made to compare relevant features of Arabic imperative structures with their nearest English equivalents.

The conditions which determine the choice of one or the other of paired imperative structures are set out below:-

A. Specification

(i) Specified - this type can be uttered initially in a dialogue and is characterized by the presence of the imperative verb-form followed by a vocative noun phrase, e.g., ʔuktub, ya salim. In form, a vocative may be:-

- (a) single name with or without a title:

Hasan, sayyid/ʔustaath Hasan
"Mr. Hasan".

- (b) standard appellatives such as nouns indicative of family relationships:

ʕammi "my uncle", ʔabi "father", ʔummi "mother",
ʔaxi "brother" or more familiar forms jamma "mother",
jaaba "father", jaxuu "brother".

colloquial form xall - + pronoun suffix, followed by a verbal noun or an imperfect form of the verb:

-da^Cna nabda? il yaan (formal)

xalliina nibda hassa (colloquial)

"let's start now".

-da^Cna naktub iddars (formal)

xalliina nuktub iddars (colloquial)

"let's write the lesson".

-xalliium maa^{jiin} (colloquial)

"let them keep going".

-xalliina Saabriin (colloquial)

"let's be patient".

Imperative structures marked by da^C -/xalli are formally different from 'plain' imperatives in that they do not allow extensibility by willa la? or not:

characteristic of requests:

cf. xallii tiftah ilbaab "let him open the door".

xallii tiftah ilbaab willa la? "Shall I let him open the door or not?"

7axallii tiftah ilbaab "Shall I let him open the door?"

(ii) First Person Exclusive:

realized by the absence of xall.

D. Insistence

(i) Insistent: In non-colloquial formal speech "insistence" is expressed by the addition of the emphatic suffix - nn nuun ittawkiid ithagiila, e.g.,

saa^Cid ilfaqiir 'help the poor' "non-emphatic"

saa^Cidann alfaqiir 'help the poor' "emphatic"

(ii) non-insistent: realized by the absence of -nn.

E. Negation

(i) Negative: adding an initial negative particle laa or maa is sufficient to negate 2nd and 3rd person imperatives

-iftah ilbaab 'open the door': laa taftah ilbaab

"Don't open the door."

- (c) markers of profession or status: duktoor "doctor",
sitt "Madam".
- (d) post-modifying relative clause illi rama ilwaraga,
jaHDur huna, "whoever threw the piece of paper,
 come here".

Greater politeness and friendliness is expressed by a term of address (often accompanied by an adjective):

ya Tawiil al-Cumr, ya Caziizi, "dear",
ya Sadiiqi "friend", ya Taxi "brother",
ya Taxi ilCaziiz, "dear brother".

The vocative may take an initial, medial or final position in the sentence, e.g.

ya Hasan fid, lis huna "Hasan, sit here".
fid, lis ja Hasan huna "sit, Hasan, here".
fid, lis huna ja Hasan "sit here, Hasan".

(ii) Unspecified:

Type (ii) is characterized by possible optional extension by deferential forms, e.g.

ʔiftaH ilbaab, "open the door".
ʔiftaH ilbaab/ ʔiṭha samaHt "open the door, please".
haat ilmastara min faDlak, "Give me the ruler, please".

B. Impatience

(i) Impatient:- characterized by the presence of the 2nd pers. pronoun + nominal clause

ʔant ya Hasan (yalli maa btisma^C) ta^Caal huna. "You, Hasan (who do not listen) come here".

These commands frequently express strong irritation or annoyance. The pronoun ʔant is given greater prominence, by stress and/or pause before uttering the command.

(ii) Patient - realized by the absence of ʔant "you", or the post modifying negative nominal clause.

C. Person

(i) First Person Inclusive: formed by preposing the form da^C + pronominal suffix (-ni, -hu, -hum, -hunna, -ha) or by the more

-waahad jiftah ilbaah: wala waahad jiftah ilbaah
'Don't anyone open the door'.

- (ii) Non-negative: realized by the absence of a negative particle.

The structures which underlie imperative clauses are shown below, and represent NPvoc. (Vocative Noun Phrase), Vimp (Imperative Verb-form, Pron. (Pronoun)):-

1. Specification:

- (i) Specified:

Vimp + NPvoc. - ʔuktub ya mustafa "Write down, Mustafa"

- (ii) Unspecified:

Vimp - ta^Caal huna "come here"

2. Impatience:

- (i) Impatient:

Pron + (NPvoc. + Post-mod.Rel. Clause) Vimp
ʔant (ya saalim yalli ma-btisma^C) ta^Caal huna

- (ii) Patient:

Vimp - ta^Caal.

3. Person:

- (i) 1st person Inclusive

da^C / xall + pron. 1st pers. + Vimperfect - xalliini
ʔusalli 'Let me pray'

- (ii) 1st person Exclusive

V- imp - Salli 'pray'

4. Insistence:

- (i) Insistent: Vimp + emphatic morph. - nna + (N)

ʔunguranna ʔaxaak 'help your brother'

- (ii) Non-Insistent:

Vimp + N ʔunsur ʔaxaak 'help your brother'

5. Negation:

- (i) Negative:

Neg. Particle + Vimp - laa taftah 'Don't open'

- (ii) Non-negative:

Vimp - ʔiftah 'open'.

English Imperative Sentences

The following analysis of utterances is an attempt to classify the nuclei of imperative structures recognizable by the native speaker of English.

A. Specification

(i) Specified, in which the imperative verb-form is extensible by a vocative noun phrase, e.g. Nora, play on my side. The vocative noun phrase is distinguished from the subject of an imperative sentence (e.g. you sit here) in that it occurs in initial, medial and final position in the sentence; the subject in the commands always precedes the verb. Furthermore, when the vocative is placed initially, it has a separate tone unit; the subject merely receives ordinary word stress.

(ii) Unspecified: realized by the absence of a vocative noun phrase.

B. Impatience

(i) Impatient: realized by the 2nd person pronoun you or 3rd person pronoun someone, e.g. you come here, You mind your own business. The subject pronoun you differs from a finite verb subject in that it is always stressed; these commands usually express strong irritation or annoyance:

Somebody open the window.

Everybody shut their eyes.

(ii) Patient - realized by the absence of you (or someone).

C. Person

(i) First Person Inclusive - realized by presence of let's e.g., let's start.

(ii) First Person Exclusive - realized by the absence of let's.

It is noticeable that whereas all commands require some action to be done, only 'let imperatives' include the speaker in the proposed action. Third person imperatives are not very common in English giving way to more appropriate constructions initiated by had better: They had better go by bus.

D. Insistence

(i) Insistent:

It is noticeable that both Arabic and English make use of parallel syntactic contrasts of terms of commands, but the terms in each system are not co-extensive.

Differences between the terms are due to different situational as well as linguistic contexts.

I. Situational

(a) Politeness:

It is generally recognized that commands sound abrupt or rude unless certain forms indicative of politeness are added; the addition of please makes the request or command more polite, e.g. please wait for me.

The addition of a question-tag, will you or would you mind/ do you mind are generally polite and deferential, e.g., would you (do you) mind putting them in the car.

The essential point to notice is that whereas deferential polite forms are normally exchanged between close friends and relatives in the English family surrounding, they are rarely used in similar Arabic situations.

(b) Emphasis:

In English, one element in a situation may be given special prominence for contrast with another or for intensity of meaning, the emphasis having the linguistic experience of tonic stress. Although there is a tendency to use a rise in pitch in requests and a fall in commands whether an utterance is a request or a command depends on the implicative role of intonation (Cf. Lee, 1956). Other things being equal, distinction between commands and requests in Arabic depends on factors other than stress, e.g. voice quality, context and the addressee.

II. Linguistic

(a) 'Emphatic' or persuasive imperative in English, addition of do makes the command more emphatic e.g. do be careful. Do have a good time. Do let's have a walk.

In Arabic, emphatic - nn added to the imperative verb - form occurs only in formal (i.e. non-colloquial) register.

(b) Impatient Imperative:-

In English, commands with a prenominal subject are usually admonitory in tone, and frequently express strong irritation. The addition of Arabic 2nd or 3rd person pronoun seems to function as a pronoun of address and the implication of its use is no more than directing the listener's attention.

Notes

- * The Arabic here dealt with is fairly generally spoken by 'educated' Jordanians. Formal (non-colloquial) utterances are indicated by (non-colloquial) where appropriate.

This type is characterized by presence of the emphatic form do with a tonic stress, e.g. Do sing, Do let's sing and don't let's sing. The choice of these forms depends on a context of situation demanding emphatic speech or when the speaker is particularly interested in giving greater intensity of meaning.

(ii) Non-insistent: realized by absence of the emphatic form do.

E. Negation

(i) Negative:- characterized by presence of the particle not/n't and a tonic stress on the last stressed syllable, e.g. don't smoke here, let's not smoke here.

(ii) Non-negative - realized by the absence of the negative particle.

The structures are shown below and represent NP (Noun Phrase)
V (lexical Verb)

v (operator), Nvoc (Vocative Noun Phrase)

A (i) Specified: Nvoc. + V - Nora, sing.

(ii) Unspecified: V - Sing.

B (i) Impatient: NP + V - You sing.

(ii) Patient: V - Sing.

C (i) 1st Pers. Inclusive: let's + V Let's sing.

(ii) 1st Pers. Exclusive V sing.

D (i) Insistent: V let's V - Do let's sing.

(ii) Non-insistent: let's V - let's sing.

E (i) Inclusive Neg. Insistent: Vn't let's V - Don't let's sing.

(ii) Inclusive Neg. Non-Insistent: let's not V - let's not sing.

(iii) Inclusive Non-Neg. Insistent: V let's V - DO let's sing.

(iv) Inclusive Non-Neg. Non-Insistent: let's + V - let's sing.

(v) Exclusive Neg. Insistent - vn't + V - DON'T sing.

(vi) Exclusive Non-Neg. Insistent - vV - Do sing.

(vii) Exclusive Non-Neg. Non-Insistent - Sing.

DON'T sing and Don't SING types (v) and (vi) are differentiated by the stress position, which are negative insistent and negative non-insistent, respectively.

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SIMPLIFICATION AND REDUCTION AS FOREIGN LANGUAGE LEARNING STRATEGIES: IMPLICATIONS FROM JORDANIAN ARABS LEARNING ENGLISH

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INTRODUCTION

Very little, to the best of my knowledge, has been published on the strategies Arab learners of English use in learning English as a foreign or a second language. This is especially so at the phonological and morphological levels.

The purpose of this paper is to shed some light on certain simplification and reduction processes Jordanian Arabs use in learning English, namely: (1) simplifying the syllables of English; (2) deleting English articles; and (3) generating English questions by means of intonation only, rather leaving the word order in the sentence unchanged, as it is in the statement form. It is also of interest to show how far these processes of simplification and reduction are related to L1 or L2 structures or to both interacting with each other.

The data used in this article rely on an Error Analysis study conducted in 1979 on the performance of Jordanian students learning English (El-Halees a). 203 students from the three upper secondary classes 1st, 2nd and 3rd, were asked to read a short story taken from a book of fables and then reproduce it in their own words in an informal situation outside of the classroom. The performance of these subjects, in both cases, was recorded on tape. The performance of 100 subjects was transcribed on paper and that of the rest was listened to carefully. Deviant forms were noted down and categorized.

The errors which form the data of this article are taken from the performance of the subjects during free reproduction of the short story.

L2-Learners Errors and Language Acquisition

Error Analysis was introduced in the sixties as an alternative to Contrastive Analysis when the latter failed in solving the

problems of foreign and second language (L2) teaching and learning and in explaining the nature of language learning. At the same time the study of L2 learner errors was no longer restricted to the problem of teaching L2 and preparing materials for this purpose but it gained a great significance in studying L2 learning processes and to a certain extent L1 acquisition. Corder (1981: 8) states that "some at least of the strategies adopted by the learner of a second language are substantially the same as those by which a first language is acquired". He then emphasises the significance of the L2-learner's errors; they reflect his competence in the language he is using at a certain learning stage and they are themselves systematic. They represent rule learning and language acquisition (Richards 1971). They tell us something about strategies the L2-learner uses in the process of his learning the language. They play a significant role in L2 learning. They are no longer looked upon as deviant forms but as representative of a certain developmental stage of L2-learning. This developmental stage at a certain time has been called "Interlanguage" by Selinker (1972) and "Approximative System" by Nemser (1974), and "Transitional Competence" by Corder (1967).

L2-learning can, then, be described as a dynamic process moving along some continuum in the direction of the target language. Two continua are recognized with a process of learning moving along each: (1) "Restructuring Continuum" where the learner replaces the features of his L1 with features of L2 in a gradual manner; errors resulting from this "Progressive Structuring" are related to L1 and they are called transfer errors; (2) "Developmental Continuum", where the learner proceeds in learning L2 in the same way as a child acquires L1, in a process of "increasing complexification"; errors resulting from this process are called developmental errors and they are in most cases related to L2 structure (Corder 1979: 74).

The two processes needn't be mutually exclusive but often are interrelated. Where L1 structures have counterparts in L2, transfer errors take place, as the learner relies on prior knowledge of L1 in his acquisition of L2. L1 has no influence on the

sequence of learning L2 but it may accelerate it. As will be seen below, some errors are ambiguous as they can be related to a restructuring or to a developmental process. The restructuring process is characteristic of the early stages of learning L2 and in general it holds for learning the phonology of L2.

Assumptions about the significance of the L2-learner's errors motivated scholars to conduct research on L1 as well as L2 acquisition, by means of investigating these errors to shed light on the nature of cognitive processes and strategies learners adopt in acquiring L2. The issue which has been raised for over a decade is whether L2 acquisition relies on cognitive mechanisms and language processing strategies used in acquiring L1, or whether they draw on constructing rules which depend on L2.

Dulay and Burt in a study on L2 acquisition indicate that children use the same strategies in L2 acquisition irrespective of their L1 background. They found that "the types of errors in English that Spanish-, Chinese-, Japanese- and Norwegian-speaking children make while learning English are strikingly similar" (Dulay and Burt 1974). In another study they found that three groups of Spanish-speaking children acquired eight English grammatical structures in almost the same sequence (Dulay and Burt 1973). In a third study (Dulay and Burt 1974) they found that Chinese- and Spanish-speaking children acquired 11 English grammatical morphemes in a similar "natural order". Their findings are similar to the results of Brown's (1973) longitudinal study which shows that children in acquiring English as L1 tend to acquire grammatical morphemes and function words in a certain order. They came to the conclusion that children use common universal cognitive mechanisms in organising L2. The acquisition process is guided by L2 rather than L1. These universal innate common mechanisms control the formulation of certain "types of hypotheses about the language system being acquired".

Henning Wode (1976) from the Kiel Project on Language Acquisition, giving evidence from research on the acquisition of phonetics-phonology for L2 English/L1 German, plural inflection

of L2 German/L1 English and negation L2 English/L1 German as well as L2 German/L1 English, agrees with other investigators (Corder 1967, Dulay and Burt 1974, and Hatch and Wagner-Crough 1975) that "naturalistic L2 acquisition follows ordered developmental sequences"; but she disagrees with them on the view they hold that L2 is acquired like L1 (identity hypothesis). She emphasizes that children rely on prior knowledge of L1 in their acquisition of L2 and this process is systematic. The developmental sequences "reflect both the structure of the L2 target language as well as the L1 acquired previously. L2 children draw on the structure of the two languages in highly systematic ways" (Henning Wode 1976). Tucker and Scott (1974) in their error-analysis study of the English performance of 22 Arabic speaking students, indicate that structures of L1 influence those of L2 and when this happens, L2 structures tend to be fossilized.

At the initial stage of learning, the learner uses his limited knowledge of L2 to communicate with other persons including L2 natives. When the situation is above his limited linguistic competence he resorts to various types of communication strategies such as using his previous knowledge of L2, utilizing L1 system as a heuristic technique-strategy of learning, avoiding difficult forms, or using simplified or reduced utterances. His utterances are characterized as being variable according to certain patterns due to social, linguistic or other factors (Dickerson 1975, 1974, Tarone 1983). For example, the learner uses more target-like variants in a formal situation but in a free oral production he uses simplification as he avoids structures he is not sure of. The performance of the L2-learner in a classroom controlled situation is different from his performance when he uses L2 to communicate with L2 natives or other people in a free situation. According to Smith (1971) there are three components of the function of language: Communicative, Integrative and Expressive. The communicative function is restricted to exchanging information with other persons, since the learner's knowledge of L2 is still limited. The integrative function is characterized by an expansion of the learner's knowledge of L2 and he utilizes this linguistic

knowledge to make himself an identity in the L2 society. When the learner's knowledge of L2 is wide enough, he is in a position to express his psychological needs in the L2 society in the same way as the native speakers do. Lambert (1970) indicates that integrative motivation results in successful L2 learning. Pidginized forms indicate that the function of L2 is limited to communication.

The early stage of learning L2 is characterized by systematic features of simplification, generalization and reduction of grammatical redundancy (Dulay and Burt 1972). Generally speaking, simplification indicates the deletion of certain morphological endings (e.g. verb, plural and possessive inflection), phonological items (e.g. weak syllables, consonants or vowels) and structural words (e.g. copula verbs, articles), and reduction indicates the elimination of redundant vocabulary items or redundant grammatical transformations (e.g. using intonation to generate questions in English and maintaining the word order unchanged) (Selinker 1972, Corder 1975, Goodman 1967, Hymes 1971).

Syllable Structure in Jordanian Arabic and English²

The number of consonants clustering at the beginning and the end of a syllable in English and in Arabic can be symbolized as follows:

English:	C_0^3	v	C_0^4
Arabic:	C_1^2	v	C_0^2

This means the onset (consonant cluster with which the syllable begins) in the English syllable consists of zero to three consonants, and the coda (the final consonant cluster in the syllable) includes zero to four consonants, e.g.,

<u>Onset</u>		<u>Coda</u>	
at	æt	saw	sɔ:
sat	sæt	sat	sæt
spin	spin	build	bild
spring	spring	builds	bildz
		texts	tekstz

The onset in Arabic includes one to two consonants and the coda, zero to two consonants, e.g.,^{3,4}

	<u>Onset</u>		<u>Coda</u>
ka:l	"he measured"	'masha	"he walked"
ka:l	"fighting"	'mashat	"she walked"
		^c abd	"slave"

English interludes (the consonants which occur in sequence between two vowels in a word, abutting consonants) include from zero to four consonants, and in Arabic from one to three consonants.

English: V C⁴₀ V, e.g., --

coeducation
begin
contain
contribute
explain

Arabic: V C³₁ V

'katab "he wrote"
'biktib "he writes"
'sim^ctu "she heard him"

Certain onsets, codas and interludes in Arabic are only admissible in quick speech, and in normal speech they are inadmissible. These inadmissible sequences of consonants are broken by means of a short vowel known as anaptyctic, which is never stressed (phonologically symbolized as A, and in transcription, it is doubly underlined). This short vowel is a close, front /i/ or back /u/ in Jordanian Arabic (and an open /a/ in Egyptian Arabic, Mitchell, 1960).

The inadmissible sequences in Jordanian Arabic, and the ways they are interrupted by an anaptyctic vowel are as follows:

1. An onset of two consonants beginning a word in a post-pausal position (at the beginning of an utterance) and here the anaptyctic precedes the first consonant in the onset, and it

is preceded in turn by a glottal stop, as words in Arabic never begin with a vowel:

Quick Speech		Normal Speech	
# # C C V _		# # ? A C C V _	
ktib	"write!"	'ʔiktib	"write!"
g ^c ud	"sit down!"	'ʔug ^c ud	"sit down!"

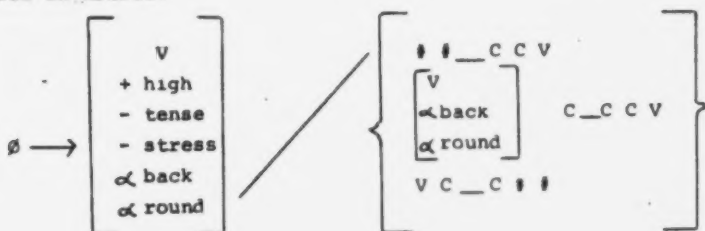
2. An interlude of three consonants, and here the anaptyctic vowel intervenes between the first two consonants.

Quick Speech		Normal Speech	
_ V C C C V _		_ V C-A C C V _	
'sim ^c tu	"she heard him"	'sim ⁱ tu	
	cf.	si'mi ^c tu	"I heard him"

3. A coda of two different consonants, and here the anaptyctic vowel intervenes between them. Where they are a geminate, no anaptyctic vowel intervenes, e.g., 'Cadd - "he counted".

Quick Speech		Normal Speech	
V C C # #		V C A C # #	
'Cabd	"slave"	'Cabid	

The following rule can be set up for the insertion of the anaptyctic vowel in Arabic:



Types of Simplification:

1. Deleting the final consonants especially in a final consonant cluster, e.g. niks or neks (nekst),⁵ skraitsh or ʔiskraitsh

(skrætsh̥t), d̥emself (d̥emselvz), ʔilifan (elifnt), ʔapiti (æpətait), diso:lv (dizəulvd), wils (wailst).⁶

Many subjects inserted an anaptyctic vowel to prevent the final consonant cluster as an alternative process to final consonant deletion, e.g. nekest/nikist (nekst), skra:tshid (skrætsh̥t), diso:lvid (dizəulvd), vikist (vekst), welist (wailst), ha:vint (hævnt).

It can be seen in these examples that the anaptyctic vowel is inserted between the first and second consonants in the final 3-consonant cluster where the final two consonants are st, nt or nd, otherwise it is inserted between the second and third consonant. Subjects also prevented an initial consonant cluster by inserting an anaptyctic vowel before the first consonant in a 2-consonant cluster (and here the anaptyctic vowel is preceded by a glottal stop) and after the first consonant in a 3-consonant cluster, e.g.

ʔislept (slept), ʔiprizentli (prezentli), ʔisikra:sh̥in (skrætsh̥in), sikra:tsh̥ (skrætsh̥), sikra:tshid (skrætsh̥t). In the last example an anaptyctic vowel is inserted after the initial consonant and another before the final consonant to prevent an initial 3-consonant cluster and final 2-consonant cluster.

2. Deleting the vc ending of the word; these are in most cases morphological endings, e.g.
ʔaksept (əkseptid), ʔatend (ə'tendid), disa:jd (disaidid), ʔe:pit (æpətait), ʔi:t (ʔi:tiŋ).
3. Deleting a vowel from inside the word, reducing the number of the syllables of the word by one, e.g.
pro:spal/prosel/propa:l (prəpəuzl), swa:ld (swələud), fo:rst (forist), watvar (wotevə), se:rps (səpə:s), ʔarval (əraival), tshiks (tshikin).
4. Deleting a consonant from inside the word, reducing an initial consonant cluster or medial abutting consonants, e.g.
dwelinqz (dwelingz), fiding (faindiŋ), ripo:sh̥d (riprəutsht), satisfaz (sætisfaiz).

5. Deleting a weak syllable or a cv form from a syllable in the word, e.g. ro:s (p'reuz), slo:d (swoləud), prantli/prentli (prezəntli).
6. Deleting the definite and indefinite articles, e.g.⁷
- | | |
|--------------------------|--------------------------------|
| ʔilifint ʔand tshikin | (the elephant and the chicken) |
| ʔabout tshikin | (about the chicken) |
| ʔand ʔilifant | (and the elephant) |
| bət ʔilivan | (but the elephant) |
| ʔandar tri: | (under a tree) |
| tu tshikin | (to the chicken) |
| ha:d dispju:t | (had a dispute) |
| de:r we:r tshikin | (there was a chicken) |
| da:n ʔilifant | (than the elephant) |
| ʔan ʔelifant and tshikin | (an elephant and a chicken) |

DISCUSSION

Errors resulting from the deletion of the final consonant in (1) above are ambiguous; they can be related to developmental or transfer processes. In the first place one can say that it is difficult for Arabic speakers to produce a final 3-consonant cluster, which is a feature of English rather than Arabic. Arabs learning English then use the strategy of simplifying the final 3-consonant cluster by deleting the final consonant or inserting an anaptyctic vowel to break the cluster. On the other hand, these errors can be related to Arabic interference into English as Arabic has no final 3-consonant cluster. It has a final 2-consonant cluster, but there is always a tendency to insert an anaptyctic vowel between the final two consonants, e.g.

/^Cabd/ and /^Cabid? "slave"

are used in free variation. The deletion of the vc endings in (2) can be related to a developmental process as the L2 learners use this strategy of deletion to make words shorter and hence easier to produce. Arabic as L1 has nothing to do with errors resulting from this deletion.

The errors resulting from the deletion of a vowel from inside the word in (3) can be described as developmental. It is a strategy the learners use in reducing the number of syllables in the word by one, i.e., simplifying the word structure in terms of the number of the syllables. Nevertheless the syllable structure in terms of the consonants clustering at the end of the resulting monosyllabic words or in the middle of the disyllabic words, is made more complex. Some resulting monosyllabic words end with a 3-consonant cluster, a feature which never occurs in Arabic, e.g.

fo:ret (forist) and se:irps (sepa:s)

An important question arises here: which form is simpler for a language learner to produce, a word with more syllables and less consonant clusters or a word with less syllables but with more consonants clustering in the syllable?

Some of the forms, here, resulting from deleting a vowel, are made to conform with the phonological structure of Arabic words, e.g. prantli/prentli (prezentli) is similar to Arabic /^Cmiltli/ "you did something for me" and /watvar/ (woteva) to Arabic /gaibak/ "your heart" and /^Canter/ "a proper name".

It is possible, then, to relate such errors to transfer factors. The errors resulting in (4) and (5) above can be described as developmental as no features of Arabic are imposed here on those of English.

The omissions in 3, 4 and 5 above can be attributed to unfamiliarity of the students with these words. Some words were introduced to subjects from the secondary classes for the first time, e.g. "reproached", and other words although not new to the subjects, were not properly acquired.

The deletion of the definite article in (6) above is not likely attributed to language transfer as the corresponding Arabic forms have the definite article /ʔal-/ "the", e.g. /ʔand ʔilifant/ "and the elephant", has the Arabic counterpart /wal fi:l/. The items where the indefinite article has been omitted, however, have counterparts in Arabic with no indefinite article since Arabic

lacks this article, e.g.:

ʔan ʔelifant and tshikin	"an elephant and a chicken";
the Arabic literal translation is:	
elephant and chicken	(fi:l wa katku:t)

Errors resulting from deleting the indefinite article can be ambiguous as they can be related to negative transfer from Arabic which lacks this article or to a developmental strategy of simplification. But as the definite and indefinite articles are subject to deletion and negative transfer is not likely to be the cause for deleting the definite article, one tends to suggest that the same strategy applies to the deletion of the indefinite article.

Brown (1973) reports that his three subjects (the children: Adam, Eve and Sarah) in acquiring English as L1, acquired the articles (the and a) at the midway stage of acquiring the grammatical morphemes and function words. Krashen (1977) reports that the order of acquisition for L1 is not the same as the acquisition of L2, though is similar to it in some respects. However, he, like Brown, also places the article in the middle of the acquisition order. Their findings strengthen the suggestion that the article deletion can be more related to developmental rather than transfer strategies. Oller (1974) in comparing the acquisition of L1 and L2 strategies states that:

1. In acquiring L2 phonology learners (children below three):
 - a. reduce the consonant cluster in the word,
 - b. delete the final consonant in the word,
 - c. delete a weak syllable.

On the other hand, in the acquisition of L2 phonology learners

2. use an epenthetic vowel instead of deleting a final consonant or reducing a consonant cluster. Deleting a weak syllable is not a frequent strategy.

The material in this paper shows that both strategies, reducing a consonant cluster or deleting a final consonant on the one hand or inserting an epenthetic vowel, is a strategy used by Jordanians learning English. This process of simplifying the syllable structure in English is in many cases independent of

the common process of transferring their Arabic native syllable structure into English.

My findings are similar to what Tarone (1976) reports about the results of her analysis of spontaneous utterances of two native speakers of each of Cantonese, Portuguese and Korean learning English as L2; she found that in addition to the common process of transferring the syllable structure into English as L2, these learners use both epenthesis and consonant deletion to simplify consonant clusters to simpler cv patterns. Tarone accounts for this in terms of the hypothesis that the cv syllable may be a universal articulator and basic perceptual unit which tends to operate in basic cv systems in all languages. Different languages elaborate on this program in different ways adding permissible initial and final consonants.

REDUCTION

Reduction is exemplified in avoiding redundancy such as reducing vocabulary items or grammatical transformations (Schumann 1975). We are concerned here with one way of avoiding redundancy, namely, avoiding changing word order in generating questions and using intonation only.

Questions in English are generated by word order and intonation. In yes/no-questions a rising intonation, e.g.

1. It is raining. ↘

Is it raining? ↗

2. His name is John. ↘

What is his name? ↘

In Arabic, be it spoken or standard, the word order in verbal sentences⁸ plays no part in generating questions; it is intonation which does the job. Rising intonation is used in yes/no-questions and falling intonation in wh- questions. The yes/no-questions in standard Arabic but not in spoken Arabic begin with a question particle. Wh- questions in both forms of Arabic, however, begin with a question word, e.g.

1. yes/no questions

a. Spoken Arabic

'katab ilwalad ri'sa:li ↓

"the boy wrote a letter"

'katab ilwalad ri'sa:li ↗?

"did the boy write a letter?"

b. Standard Arabic

'kataba lwaladu ri'sa:latan ↓

"the boy wrote a letter"

hal 'kataba lwaladu ri'sa:latan ↗?

"did the boy write a letter?"

2. wh- questions

a. Spoken Arabic

'katabi lwalad ri'sa:li ↓

"the boy wrote a letter"

wikte:sh 'katabi lwalad ri'sa:li ↓

"when did the boy write a letter?"

b. Standard Arabic

'kataba lwaladu ri'sa:latan ↓

"the boy wrote a letter"

'mata: 'kataba lwaladu ri'sa:latan ↓

"when did the boy write a letter?"

Here are some examples, from my material, of English questions generated by the use of intonation only and unchanged word order, as it is in the statement form.

1. yes/no questions

The chicken arrived? ↗

(Did the chicken arrive) ↗

The book is new? ↗

(Is the book new) ↗

2. wh- questions

When you bring the book? ↓

(When did you bring the book) ↓

Where your father went? ↓

(Where did your father go) ↓

This wrong question generation is more common where the insertion of do is needed.

DISCUSSION

The issue arising here is whether generating English questions this way, disregarding word order and utilizing intonation only, is related to negative transfer from Arabic, where questions are generated by means of intonation only and word order plays no part, or it is related to the strategy of avoiding redundancy usually adopted by learners of L2 at the initial stage of their learning,

or to both processes interacting with each other. Although it is very difficult to decide, one would tend to suggest that both factors interact since the avoidance of redundancy strategy has been reported for learners of English with various L1 background and negative transfer is very likely at this stage (Ravem 1979, Cancino, Rosansky and Schumann 1979).

CONCLUSION

The following types of modification of the syllable structure and word structure have been found for adult Jordanian Arab students learning English as a foreign language.

1. Deleting the final consonant, particularly in a final consonant cluster, or inserting an anaptyctic vowel to break the C-cluster.
2. Deleting final VC (in most cases a morphological ending) in the word.
3. Reducing the number of syllables of the word by deleting a vowel from inside the word.
4. Reducing an initial C-cluster or middle abutting consonants.
5. Deleting a weak syllable or a cv form from a syllable in the word.
6. Deleting the definite and indefinite articles.

In certain cases the number of syllables in the word is reduced but the syllable structure is made more complex by increasing the number of consonants clustering in the syllable.

It has been also found that Arab students generate English questions by means of intonation only and word order remains unchanged.

Errors caused by deleting a final consonant and the indefinite article and generating questions are ambiguous, as they can be related either to negative transfer from Arabic or to a developmental strategy. Anyhow, such errors can be related to both cases interacting with each other.

My findings concerning these simplification and reduction processes which Jordanian students use in acquiring English as L2 are in congruence with the findings of other researchers on L2 acquisition. This indicates that at the initial stage of acquiring L2, L2 learners use similar types of simplification and reduction processes; variation in their output can be related to sociolinguistic or other factors (Tarone 1983). This adds to the speculation that there may be universal processes of simplification and reduction operating in L2 acquisition.

Footnotes

1. The Acquisition-Learning Distinction hypothesized by Krashen is dealt with in this article. We are concerned with learning rather than acquiring English by Jordanian students, as the only way that these students are exposed to English is through formal teaching in the classroom. They tend to have no "implicit learning, informal learning or natural learning." They "know about" rather than "pick up" English (Krashen 1982 - 12).
2. Jordanian Arabic used in this study is based on the variety used by the country people (the author's dialect), and English is based on the form of RP English taught to foreigners (Daniel Jones 1956, Grimson 1980, Trudgill and Hughes 1980).
3. In some dialects the onset includes from one to three, e.g., stri:h - "have a rest"
4. An anaptyctic vowel is a characteristic of colloquial rather than standard Arabic.
5. The right forms are enclosed between two brackets.
6. Any error stated in this study was made by at least 15 subjects.
7. A thorough investigation, by the present author, of the deletion of the English articles by Arabs learning English is under preparation.
8. In the neutral word order in a nominal sentence yes/no-question in spoken Arabic the predicate is moved before the subject, e.g. *ilwalad daki* ʔ (statement), *dakilwalad* ʔ "is the boy clever?" In standard Arabic nominal sentence yes/no-questions, the word order depends on the question particle which precedes the sentence, e.g. *ʔalwaladu daki* ʔ ʔ (statement) "the boy is clever," *hal ilwaladu daki* ʔ ʔ "is the boy clever?" *ʔa daki* ʔ *ilwaladu* ʔ "is the boy clever?" The issue is very much complicated insofar as the wh-nominal sentence questions are concerned and it is beyond our goal in this article.

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THE STRESSING OF FINAL SUPERHEAVY SYLLABLES
BY SAUDI LEARNERS OF ENGLISH:
IMPLICATIONS FOR THE CONTRASTIVE ANALYSIS HYPOTHESIS

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1. Introduction

From my experience teaching English to Arabic-speaking students and listening to Arabs speaking English, I have noticed a general tendency among them to apply Arabic stress patterns in their English pronunciation, even in cases where pronunciation errors result. English teachers of Arab students must have noticed such pronunciation errors as (/ indicates primary stress in the syllable above which it appears):

- | | | | |
|-----|-------------|-----|------------|
| (1) | éleven | for | el'éven |
| | bégin | | begin |
| | dicti'inary | | díctionary |
| | cucúmoer | | cúcumber |
| | telephóne | | téléphone |

However, Arab speakers of English, particularly those who have not yet reached a stage of fluency in the language, do not seem to apply the Arabic stress rules to English words ending in CVCC (where C = consonant, V = vowel) syllables, even in cases where these syllables are stressed in English. The following English words are normally stressed on the initial syllable by these speakers, whereas they are stressed on the final syllable by native speakers:

- (2) percent
insist
abrupt
descend

This is particularly interesting since the stress rules of Arabic, as will be shown below, systematically assign stress to final CVCC (superheavy) syllables. Consider, for instance:

- (3) katábt 'I/you m.s. wrote'
maḥáll 'place'
etc.

In this paper, I will examine:

- (i) How consistent Saudi students of English are in avoiding the assignment of stress to final CVCC syllables in English, and
- (ii) How this linguistic behavior bears on the Contrastive Analysis Hypothesis.

Before discussing the results of the experiment introduced in the next section, a look at the Arabic stress rules is in order.

The rules of stress assignment in the Arabic dialects east of the Maghreb are similar, with the exception of Egyptian Arabic. Although this study is based on evidence from the pronunciation of Saudi Arabic speakers, the conclusions drawn, unless otherwise indicated, should be applicable to speakers of such Arabic dialects as Greater Syrian, Iraqi, and other dialects of the Arabian Peninsula (see Abdo 1969, Al-Mozainy 1981).

The stress rules of these dialects are as follows:

1. Stress falls on a final syllable of the form CVCC, CVC (superheavy syllables), or CV̄ (where C = consonant, V = short vowel, and V̄ = long vowel).
 E.g. maḥáll 'store, place'
 ḥayā 'life'
 barīd 'mail'
2. It falls on the penultimate syllable if no final syllable of the forms mentioned above exists and if
 - a. the penultimate is heavy (CVC or CV̄)
 E.g. katábna 'we wrote'
 makātīb 'offices'
 - b. or it is the first syllable in the word.
 E.G. kátab 'he wrote'
 ṣábi 'boy'
3. Otherwise, it falls on the antepenult.
 E.g. kátabu 'they wrote'
 báladak 'your country'

2. The Experiment

An experiment was made in which two groups of speakers were asked to read 33 nonsense words which had English sounds and typical English syllable structure in two different orders. The two groups of speakers were composed as follows:

Group A. The three most fluent second year English majors at the College of Education in Abha, Saudi Arabia. These students have finished between 27 and 33 credits of English language courses at the college. They were selected for two reasons. First, their familiarity with the English spelling system and syllable structure enables them to read the words of the experiment without much difficulty. Second, their mastery of English has not yet reached a point where they would apply English stress rules without interference from Arabic. Interference from Arabic is expected to be stronger and more noticeable in the case of these students than in the case of the other group.

Group B. The three most fluent fourth year English majors at the same college, whose TOEFL scores ranged between 470 and 495. These students have finished 60-70 credit hours of English at the college. One of these (Speaker 5) took an intensive English course for English majors at King Saud University in Riyadh before taking any English at Abha. The other two (Speakers 4 and 6) each spent two years at a British university before transferring to Abha. These students are expected to show a better command of English stress patterns, with less interference from Arabic, than those in Group A.

The words were selected in such a way as to represent different English sound combinations and syllable structures but all ending in CC clusters. No monosyllables are included because their stress pattern is uninteresting for purposes of this study. A list of these words, showing the two orders in which they were read by the subjects, is included in the appendix. The words were tape recorded and analyzed. A discussion of the results follows.

For convenient reference, the words of the experiment are divided into three groups:

1. Bisyllabic words:

sadent, flintelk, frintemp, teland, kinters, kinterp,
sledent, kilteld, spinnist, scantered, lodened,
fertent, kintesp

2. Trisyllabic words with a heavy (CVC) penult:

dagusters, dagustant, sacantamp, telandism

3. Trisyllabic words with a light (CV) penult:

bacadant, thermodint, bacadart, faladent, braganist,
feledished, feledisk, redeburk, fadanork, panarint,
feledimp, delemark, pitimirk, qendorens, dafonilt,
deledirb.

The pronunciation of these words by the six subjects is recorded in Tables 1, 2, and 3 below.

Table 1

	Group A			Group B		
	Speaker 1	Speaker 2	Speaker 3	Speaker 4	Speaker 5	Speaker 6
sadent	sádent	sádent	sádent	sádent	sádent	sádent
	"	"	"	"	"	"
flintelk	flíntelk	flíntelk	flíntelk	flíntelk	flíntelk	flíntelk
	"	"	"	"	"	"
frintemp	fríntemp	fríntemp	fríntemp	fríntemp	fríntemp	fríntemp
	"	"	"	"	"	"
teland	téland	telánd	téland	téland	telánd	telánd
	telánd	"	"	telánd	"	"
kinters	kínters	kínters	kínters	kínters	kínters	kínters
	"	"	"	"	"	"
kinterp	kínterp	kínterp	kínterp	kínterp	kínterp	kínterp
	"	kíntrep	"	"	"	"
sledent	slédent	slédent	slédent	slédent	slédent	slédent
	"	"	"	"	"	"
kilteld	kílteld	kílteld	kílteld	kílteld	kílteld	kílteld
	"	kíliteld	"	"	"	"
spinnist	spínnist	spínnist	spínnist	spínnist	spínnist	spínnist
	"	"	"	"	"	"

scantered	scāntered	sacantērd	scāntered	scāntered	scāntered	scāntered
	"	scāntered	scāntred	"	"	"
lodened	lōdened	lōdened	lōdened	lōdened	lōdened	lōdened
	"	"	"	"	"	"
fertent	fērtent	fērtent	fērtent	fērtent	fērtent	fērtent
	"	"	"	"	"	"
kintesp	kīntesp	kīntesp	kīntesp	kīntesp	kīntesp	kīntesp
	"	kīntsep	"	"	"	"

In the pronunciation of the words in Table 1, the two groups of subjects exhibited similar stress patterns. The words sadent, flintelk, frintemp, kinters, sludent, kilteld, spinnist, scantered, lodened, fertent, and kintesp were invariably assigned initial (penultimate) stress by all subjects. In the remaining two words of this subgroup, the two groups of speakers behaved differently. The word teland was assigned initial stress three out of six times by the Group A subjects and one out of six times by the Group B subjects. The word kinterp was assigned initial stress by two subjects in Group A and by the three subjects of Group B.

Table 2

	Group A			Group B		
	Speaker 1	Speaker 2	Speaker 3	Speaker 4	Speaker 5	Speaker 6
dagusters	dāgusters	dagusters	dāgusters	dāgusters	dāgusters	dāgusters
	"	"	dagusters	"	dagusters	"
dagustant	dāgustant	dagustant	dagustant	dāgustant	dagustant	dāgustant
	"	"	dāgustant	"	dāgustant	"
sacantamp	sacāntamp	sacantāmp	sacāntamp	sacantāmp	sācantamp	sācantamp
	sacantāmp	"	"	sacāntamp	sacāntamp	"
telandism	telāndsism	teledānsism	telāndism	telāndism	telāndism	telāndism
	telāndism	telāndism	"	"	"	"

One of the main differences in the pronunciation of the words in Table 2 between the two groups is the stronger tendency among speakers of Group B to stress the initial syllables of these words. Another noticeable phenomenon is the stressing of the penultimate syllable of telandism with a lengthening of the vowel in that syllable by all speakers of both groups.

Table 3

	Group A			Group B		
	Speaker 1	Speaker 2	Speaker 3	Speaker 4	Speaker 5	Speaker 6
bacadant	bácadant	bácadant	bácadant	bácadant	bácadant	bácadant
	"	"	"	"	"	"
thermodint	thérmodint	thérmodint	thérmodint	thérmodint	thérmodint	thérmodint
	"	"	"	"	"	"
bacadart	bácadart	bacáđart	bacadárt	bacadárt	bácadart	bacadárt
	bacadárt	"	"	"	"	bácadart
faladent	fáladent	fláđent	fáldent	fáladent	fáladent	fáladent
	"	"	"	"	"	"
bráganist	brágnist	brágnist	bráganist	bráganist	bráganist	bráganist
	bráganist	bráganist	"	"	"	"
feledished	féledished	flédshed	féldished	féledished	féldshed	féledished
	"	"	"	"	flédshed	"
feledisk	féledisk	flédisk	féldisk	féledisk	flédisk	féledisk
	"	féledisk	féledisk	"	"	"
rededurk	redbúrk	redbúrk	redburk	rededurk	redbúrk	rededurk
	rededurk	redburk	"	"	"	redbúrk
fadanork	fádanork	fádanórk	fadanórk	fádanork	fádanórk	fádanork
	fádanórk	"	"	"	fádanork	fádanórk
panarint	pánarint	pánarint	pánarint	pánarint	pánarint	pánarint
	"	"	"	"	"	"
feledimp	féledimp	flédimp	flédimp	féledimp	flédimp	féledimp
	"	féledimp	"	"	"	"
delemark	delemárk	delemárk	delemárk	delemárk	delemárk	delemárk
	"	"	"	delemark	"	delemark
pítimirk	pítimírk	pítimírk	pítimirk	pítimirk	pítimirk	pítimirk
	pítimirk	"	pítimírk	"	"	"
gendorens	géndórens	géndórens	géndorens	géndorens	géndorens	géndorens
	géndorens	"	"	géndórs	"	"
dāfonilt	dāfonilt	dāfonilt	dāfonilt	dāfonilt	dāfonilt	dāfonilt
	"	"	"	"	"	"
deledirb	deledirb	deledrib	deldrib	deledirb	dledirb	deledirb
	deledirb	"	"	"	deledirb	"

As table 3 shows, the following words received initial stress by the six subjects in all cases:

bacadant, thermodint, faladent, bráganist, feledished, feledisk,
panarint, feledimp, dāfonilt.

There were some variations in the pronunciation of the other seven words. In general, the subjects in the A group showed a clear tendency towards assigning ultimate stress with concomitant vowel lengthening to these words, whereas the subjects in the B group tended to assign them initial stress.

One striking generalization can be drawn from an examination of the above three tables: there are no cases of final stress except in cases where the vowel in the final syllable was lengthened. The latter include the following words:

teland, scantered, daqustant, sacantamp, redeburk, fadanork, delemark, pitimirk, deledirb.

It is interesting to note in this context that all these words have either a, e, or both in the final syllable. The reason for such lengthening in some words but not in others seems to be a matter of interpretation of the English spelling system by the subject, and thus lies outside the scope of the present study.

3. Discussion

... the native language of the learner interferes in specific and predictable ways at each new step in acquiring a second language (Bolinger 1971).

... in the comparison between native and foreign language lies the key to ease or difficulty in foreign language learning Those elements that are similar to the learner's native language will be simple for him and those elements that are different will be difficult (Lado 1957: 1-2).

The essence of the Contrastive Analysis (CA) Hypothesis lies in these two statements. The strategy is to make a systematic comparison of the native and target languages, and, on the basis of this comparison, to predict learners' errors. Those aspects in which the two languages differ, and only those, will be the areas in which learners make errors, and their errors will consist of transferring the properties of the native language into the corresponding areas of the target language.

Applied to the present study, this hypothesis predicts that Saudi students will transfer the Arabic stress pattern to English words, and thereby produce incorrect pronunciations where the stress rules of the two languages differ. By and large, stress errors made by Saudi students are accounted for in this way: e.g. éleven, dictionary and the other examples cited in the Introduction exhibit the Arabic stress pattern, as a comparison of these forms with Arabic words of equivalent syllable structure such as kátabat, maktábatī, and so on, reveals.

In addition to these errors, other instances of this interference were apparent in the present study. A long vowel in the final syllable of a word always receives primary stress in Arabic: barīd 'mail', majnūn 'crazy', makān 'place', etc., but this is not always the case in English: e.g. télephone, caravan, exercise, execute. As we saw above, the subjects in this experiment consistently stressed the final syllable of a word whenever they pronounced that syllable with a long vowel, thus exhibiting the Arabic, rather than the English, stress pattern.

As we have seen, however, these subjects failed to stress word-final CVCC syllables in every case (unless the vowel was pronounced long), contrary to the Arabic stress rule. This is a clear counterexample to the CA hypothesis, since it is a case in which native and target languages differ but in which, nevertheless, the feature of the former is not transferred to the latter.

It might be objected that these subjects have mastered the English stress system to the extent that transfer from Arabic no longer occurs. But final CVCC syllables are not regularly stressless in English. In fact, there is no hard and fast rule for the stressing of such syllables: compare the words in columns (a) and (b) of (4).

(4)	(a)	(b)
	insist	fascist
	except	addict
	subject	subject
	interrupt	frequent
	percent	absent

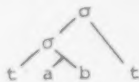
At best, rough generalizations can be made about stress in certain phonologically and/or morphologically-defined classes: for example, verbs tend to be finally-stressed while nouns and adjectives are not, as in the well-known noun-verb pairs like subject-subject, conduct-conduct, etc. We cannot, therefore, attribute non-stressing of final CVCC syllables on the part of the Saudi subjects to assimilation of an English rule, because no such rule exists. In addition, these students make numerous errors in stressing other English words (dictionary, etc.), and thus have not in any sense mastered English stress. Furthermore, my own informal observations indicate that students are no more likely to assign stress to the final CVCC syllables of verbs like those in column (a) of (37), where that stress would be correct, than to nouns and adjectives like those in column (b). So this generalization about English stressing of final CVCC syllables cannot have been learned by them.

Analogy with familiar English words does not offer an explanation either. Such an explanation would require that the students always analogize with words like subject and absent, never with insist and percent. Then this putative explanation becomes merely circular, with the original question replaced by that of why analogies are based only on one group of words.

We have established, then, that transfer cannot explain the pronunciation of words with final CVCC syllables by Saudi learners, nor can their knowledge of English rules or individual words. In what follows, two possible explanations will be suggested. Since both are at this point speculative, a choice between them awaits further evidence.

The first attempted explanation is based on the analysis of Arabic stress presented by McCarthy (1979). McCarthy analyzes a final CVCC syllable as a CVC syllable to which an additional consonant has been adjoined. This is illustrated in (5) (σ = syllable).

(5)



katabt 'I/you m.s. wrote'

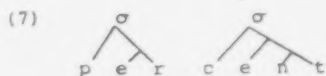
Stress rules are assumed to be sensitive only to syllable rimes (i.e. the syllable peak plus any postvocalic consonants), since it is well-attested that syllable onsets do not influence stress placement. When the Arabic stress rule scans the rime structure shown in (5), it will be equivalent to that of a word with a CVC penult and light ultima, as in (6).



That is, in each case there is a word-final rime containing one element (t in (5) and a in (6)), a penultimate rime containing two elements (ab in both (5) and (6)), and an antepenultimate rime with a single element (a). In other words, the tab in (5) is stressed for the same reason that the tab in (6) is: because it is a penultimate heavy rime.

The relevance of this analysis to the subject at hand is that the Arabic stress rule requires no reference to final syllables or rimes at all, since the final CVCC syllable receives stress because it contains a penultimate rime, not because it is a final syllable. If the Arabic stress rule then in fact contains no provision for stressing final syllables, we can see why final CVCC syllables fail to be stressed by the Saudi learners of English.

Two questions remain to be answered here. First, we must claim that final CVCC syllables in English are not analyzed, as in Arabic, like (5) by Saudi speakers, but rather are assigned the more straightforward syllabification shown in (7).



Then the final CVCC syllable of English cannot be stressed by transference of the Arabic stress rule, since the latter does not stress such syllables. In a sense we have now simply pushed our problem back one step: we must now explain why the syllabification in (5) is not transferred to English. It could be suggested that,

since (5) is presumably a more marked syllabification of CVCC sequences than (7), Saudi learners assume the less-marked syllabification for English. It is not clear whether there are any precedents for this kind of a model in which the native language contains a structure which, being highly-marked, is not transferred to the target language, a less marked alternative replacing it.

Second, why do Saudi learners nevertheless stress English final CVC syllables (telephóne, caraván, etc.)? Final CVC syllables in Arabic will be analyzed analogously to the CVCC syllables, as in (5) (because CVC and CVC are both treated as heavy syllables by the stress rules of the language; see the Introduction). They are again stressed because they contain a heavy penult, and we would expect by the same reasoning used in the CVCC case that this stress pattern would not be transferred to English. However, note that the Arabic stress rule must be able to stress long vowels in absolute word-final position, as in hayá 'life', katabú 'they wrote it', ramá 'he threw it', and so on. Here the analysis in (5) does not come into play. In other words, the Arabic stress rule does explicitly stress long vowels in final syllables (whether or not these syllables are closed by a consonant), and so this aspect of the stress rule will be transferred to the final syllables with long vowels in English.

The second explanation rests on the observation that only two kinds of final CVCC syllables exist in Arabic: (i) those in which the final CC cluster is a geminate, and (ii) those in which a morpheme boundary separates these two consonants. Examples of case (i) are maháll 'store, place', maqáss 'scissors', yihíbb 'he loves'. Examples of case (ii) are katabt 'I/you m.s. wrote', jálást 'I/you m.s. sat', where -t is the 1st sg/ 2nd m.s. subject suffix. Since geminates do not exist in English, case (i) could clearly not be a source of transfer to English. There are English words conforming to type (ii), however: chapters, finished, etc. Yet these words are not stressed finally like Arabic katabt by Saudi speakers. It could be that these students have learned that these suffixes cannot induce stress changes in English--

alternations like finish-*finished would be quite unEnglish, although equivalent alternations are common in Arabic (kātab 'he wrote'-katābt). Note that examples of type (ii) are found only with the suffix -t. Therefore, Saudi speakers might perceive the final stress as somehow associated with this suffix in particular, and so do not transfer it to English where this suffix is not found.

This explanation is also able to account for the consistent stressing of word-final CVC syllables in English by the Saudi subjects, whether or not that stress is correct. In Arabic, these syllables do not always have an internal morpheme boundary: kitāb 'book', makān 'place', karīm 'generous', etc. are monomorphemic. Thus the Saudi students find no obstacle in transferring this stress pattern to English, sometimes resulting in errors.

Note that both explanations offered here involve some native language features which fail to be transferred to the target language: in the first case, the structure assigned to CVCC syllables, and in the second, the influence of certain morphemes on stress. Thus either case contains counterexamples to the CA hypothesis.

4. Conclusion

It has been shown that Saudi learners of English consistently fail to stress final CVCC syllables in English, despite the fact that such syllables are always stressed in Arabic and that transfer of Arabic stress patterns to English clearly occurs in other kinds of words. This fact represents a counterexample to the Contrastive Analysis Hypothesis. Possible explanations were offered for this lack of transfer, one based on the syllabic structure of CVCC sequences in Arabic, the other on their morphological structure.

Appendix

sadent
 bacadant
 thermodint
 bacadart
 faladent
 flintelk
 frintemp
 braganist
 feledished
 teland
 dagusters
 kinters
 gendorens
 deledirb
 feledisk
 kinterp
 fadanork
 sacantamp
 faladent
 feledished
 dagusters
 kinters

feledisk
 redeburk
 kinterp
 fadanork
 sledent
 kilteld
 panarint
 spinnist
 feledimp
 dagustant
 sacantamp
 scantered
 pitimirk
 fertent
 sledent
 spinnist
 panarint
 feledimp
 scantered
 bacadant
 flintelk
 braganist

lodened
 delemark
 telandism
 pitimirk
 gendorens
 dafonilt
 fertent
 deledirb
 kintesp
 lodened
 telandism
 delemark
 dafonilt
 kintesp
 redeburk
 kilteld
 sadent
 dagustant
 thermodint
 frintemp
 bacadart
 teland

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ACHIEVEMENT TESTING AND FOREIGN
LANGUAGE TEACHINGAbdelrahman A. Abdrabou
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Foreign language tests can be classified into two major categories depending upon the purpose for which they are used. The first category includes achievement and diagnostic tests where the purpose is to assess "achieved" or current performance. The second category encompasses proficiency and aptitude tests. Rather than assessing present performance, proficiency and aptitude tests are basically designed to predict future performance. Within the above limitations and defined purposes, it is reasonable to agree with Spolsky's definition (1968:88) of achievement and diagnostic tests as an essential procedure for the "classroom teacher who wishes to find out how effective his teaching and the students' learning have been or to discover what needs to be taught." In short, the first class of tests (the achievement and the diagnostic) can be utilized for devising appropriate syllabuses to improve present performance, the second class (the proficiency and the aptitude) is used for making an educated guess about a person's chances of academic success in a foreign language.

For the purpose of structuring this paper, it seems extremely important that we establish working definitions for commonly used terms such as "achievement" and "proficiency." Briere (1971, p. 385) defines "achievement" in language performance as the "extent to which an individual student has mastered the specific skills or body of information which have been presented in a formal classroom situation." The problem with the foregoing definition is that it limits instruction to formal classroom situations and it renders "achievement" to mastery of "specific skills." This is a very narrow view of language classes which in principle should be informal. It is also a very narrow view of achievement in language performance which should go beyond

the simple level of recalling "a body of information" to the level of analysis, interpretation, synthesis and eventually application. This might seem to be a very ambitious goal to achieve within the constraints of achievement tests. It is ambitious, true, but it is feasible. It is feasible if we as teachers assume the responsibility for transferring such complex skills to our students during instruction.

On the other hand, Briere (1968, p. 386) defined proficiency as "the degree of competence or the capability in a given language demonstrated by an individual at a given point in time independent of a specific textbook, chapter in the book, or pedagogical methods." The key word in the foregoing definition is the word "independent." Whereas achievement tests are content-bound, proficiency-tests are content-free. This does not mean that proficiency tests do not have a content. It simply means that the sampling items of a proficiency test are to be based on an overall factor analysis of English language skills rather than on a specific content or specified skills.

Even though proficiency tests are very important for assessing the terminal behavior of foreign language learners, this study will, however, limit itself to the issue of achievement testing. Our interest in achievement testing springs from our unfailing realization that there is a one-to-one relationship between teaching and testing. This relationship can best be exemplified by means of achievement tests. This is simply because achievement tests are primarily constructed to work in two different directions: to reinforce learning, and to provide feedback about the effectiveness of teaching. This argument will be carried a little bit further in the third quarter of this paper. The following discussion will focus on the different types of achievement tests: their rationale, function, and the principles underlying their construction. Of all four types of achievement tests, a special consideration will be given to mastery and diagnostic tests. Our discussion of mastery and diagnostic tests will draw heavily on their possible use for reinforcing reading

comprehension skills and for facilitating difficulties pertaining to reading comprehension.

Language Achievement Tests: Rationale, Function and Principles

Most achievement tests are prepared, administered, scored and interpreted by classroom teachers. They are, therefore, called classroom tests. Their major function is to measure student achievement and thus to contribute to the evaluation of his learning progress and attainment. This is a matter of considerable importance. To argue, as some critics of testing have argued, that what a student knows and can do is more important than his score on a test or his grade in a course implies quite incorrectly in most cases that the two are independent or unrelated. This is absolutely erroneous, because test scores are meant to measure reward and reinforce effective study, penalize unproductive effort, and/or discourage lack of effort. Tests can, and often do, help teachers to give more valid, reliable grades in connection with students' educational achievement.

Test constructors often face two major problems. The first is to determine what to measure. The second is to decide how to measure it. How well the first problem is solved largely determines what is sometimes called the relevance of the test. Robert L. Ebel (1965, p. 22) defines relevance as: "The apparent or obvious logical relationship between what the process of testing requires the student to do and what the process of education undertook to teach him to do." A test is relevant if it strives to strike a balance between what has been taught and what is expected to be learned. The gap between the two can be approximated by appropriate selection of test items. Within the context of foreign language testing, we should first determine the basic areas to be sampled. What are the language features and skills to be tested? How relevant to content are they? And how meaningful to the learner can they be? The problem of relevancy can be solved by clearly identifying goals in a carefully designed language matrix. Test items can be extremely meaningful

if the teacher knows what his students will need the language for. Exploration of the needs of the learner is crucial to the issue of meaningfulness of test items. An EFL student might want to study English to do external readings on subjects such as medicine or engineering of which there is not enough literature in his native language. For such a type of student the teaching of English should focus on sharpening reading comprehension skills, and achievement tests should aim at assessing the degree of mastery of such skills. It is out of proportion and certainly meaningless to construct tests for such type of learners that aim at measuring oral or aural skills.

The extent to which achievement tests contribute to their intended goals is determined largely by the principles underlying their construction and use. The following discussion of achievement test principles is drawn heavily from Norman E. Gronlund's book, Constructing Achievement Tests (1977, pp. 7-14).

(1) Achievement tests should measure learning abilities that are in harmony with the goals of instruction. Therefore what comes first in constructing an achievement test is not the construction of test items, but rather the identification of the learning abilities to be measured. This is the most crucial stage in the construction of achievement tests because much of what we understand as "learning abilities" is intangible and does not fit the rigid definitions of what are so called "behavioral objectives." The foregoing argument is not meant to underestimate the value of the language testing matrix, because that is a step toward approximating any discrepancy between teaching and testing. A language testing matrix should be utilized as a guideline for the selection of test items, but not as a constraint for all learning goals.

(2) Achievement tests should measure a representative sample of the content and subject matter that have been explicitly or implicitly taught. This allows for more of a wide range of goals to be assessed. This is important because if we cannot ensure that an adequate sample of content and subject matter is incorporated in our test, we cannot tell with certainty whether the test result is a reliable measure of achievement or not. In achievement tests, adequate sampling is a matter of greatest concern. For example, is a spelling test of twenty or thirty words a good example of the learner's spelling ability? Raising such kinds of questions is very important for the understanding of the strength and limitations of the whole process of evaluation.

(3) Achievement tests should include the types of test items that are most appropriate for measuring the intended goals. The major classifications of achievement test items are as follows:

- A. Supply-type (student supplies the answer).
 - 1. Essay - extended response, e.g., free composition.
 - 2. Essay - restricted response, e.g., controlled composition.
 - 3. Short answer (word or phrase).
 - 4. Completion, e.g., fill in blanks or cloze-tests.
- B. Selection-type (student selects the answer).
 - 1. True-false.
 - 2. Matching.
 - 3. Multiple choice.

Selecting the appropriate type of test items depends mainly upon the nature of the course and the purpose of the test. In general the supply-type is more appropriate for measuring productive skills such as writing and/or speaking, whereas the selection type is the best fit for measuring receptive skills such as reading and listening comprehension. In the closing section of this paper, we will see how multiple choice tests can be utilized for measuring reading comprehension.

(4) The results of achievement tests should be interpreted only within the specific context and purpose of the test. For instance if an achievement test is specifically designed to assess prerequisite skills at the beginning of instruction (placement test), it will be of no great value to pinpoint difficulties during instruction or to measure goals at the end of instruction. This is simply because placement-tests are - by definition - intended to measure the minimum essentials of a prerequisite unit of instruction or limited set of required skills. Placement-tests tend to be very broad and relatively easy and if used for other purposes, their results might not be valid. The same holds true for diagnostic and summative tests.

Types of Achievement Tests:

Achievement tests can be classified into four basic types of classroom evaluation. These types are: (1) placement evaluation, (2) formative evaluation, (3) diagnostic evaluation, and (4) summative evaluation. Since most achievement tests are teacher-made tests, this classification provides a convenient frame of reference for teachers to consult in planning classroom

tests. Even though the four types of tests are extremely important, we will, however, limit ourselves to formative and diagnostic testing. The reason for this is that we are interested in the interrelationship between learning, teaching, and testing which can best be illustrated by formative and diagnostic evaluation.

Formative Testing:

Formative tests are given periodically during instruction to reassure teachers that what has been taught is understood. A formative test typically covers some predefined segments of instruction. For example in a grammar class, we may want to make sure that our students are capable of using and differentiating between the simple present and the simple past. In such a case, a formative test focusing primarily on these language features is in order. Due to their heavy dependence upon predefined content, formative tests are sometimes referred to as criterion-referenced mastery tests. This is in contrast with proficiency tests which are usually norm-referenced. Ideally formative tests should be constructed in such a way that corrective measures are considered to ensure optimal mastery.

Diagnostic Testing:

Diagnosis of persistent learning problems is an indispensable task for any teacher to undertake. It is indispensable because we always strive for optimal learning. The diagnostic test takes up where the formative test leaves off. If the learner does not positively respond to the corrective feedback of formative testing, a more detailed search for the source of learning errors is called for. Diagnostic tests provide invaluable insights into the nature of learning difficulties since they are constructed in light of the most sources of errors encountered by learners. A language teacher should, therefore, be able to use the information provided by the diagnostic test to determine why the student is deficient in a particular area

of foreign language study. For example, there may be cases in which students cannot use the auxiliary verb 'do' properly in interrogative and negative sentences, or cannot handle the continuous present form in their speech or writing. The search for the sources of errors might entail a study of the learner's native language. In such a case, the literature on contrastive linguistics and contrastive rhetoric might be of great help for the teacher to unveil the underlying causes of the learning difficulties. Error analysis of students' performance on a diagnostic test should ideally encourage the teacher to devise more effective methods of teaching to offset learning problems.

Though we mentioned earlier that diagnostic tests are by definition and by function classroom tests, yet there are plenty of standardized diagnostic tests dealing with persistent learning problems pertaining to specific foreign language communities (e.g., Spanish-speaking community).

The Instructional Value of Achievement Tests:

Achievement testing plays a prominent role in all types of instructional programs. Like any other form of evaluation, the emphasis in achievement testing is on measuring learning, but it should not be implied that this is the ultimate goal of such tests. As with teaching, the main purpose of achievement testing is not only to evaluate, but also to improve learning. In order to realize the full potential of achievement tests as learning aids, it is necessary to make testing an integral part of the instructional process. Testing should be considered before and during the various stages of teaching. From the beginning of instruction to the end, there are numerous decisions that teachers must make. Testing can improve the effectiveness of many of these decisions by providing more objective information on which to base the judgments. At the beginning of instruction, teachers often want to know to what extent the students possess the prerequisite skills needed to start instruction. A well designed placement test can provide

teachers with more reliable information concerning learning readiness and save them the trouble of making erroneous assumptions. Under these conditions, placement tests provide an invaluable aid for placing each student at the most appropriate level of instruction.

During instruction, the main concern of teachers is with the learning progress being made by students. Their concern can best be satisfied by means of formative tests which can be given at the end of each unit of instruction. The effect of such tests on learning cannot be overlooked. This is simply because the ultimate goal of formative testing is to improve learning. If the majority of the students fail a test item or set of items, the material ought to be retaught for the whole group. When a minority of students experience learning failures, a much more individualized or programmed instruction is sought to facilitate learning.

When a student's learning problems become so persistent that they cannot be resolved by the corrective measures of formative testing a more intensive study of the students' learning difficulties is called for. It is at this point, as we mentioned earlier, that the diagnostic test is most useful. The formative test determines whether a student is in good command of the subject matter being taught, and if not, prescribes how to deal with the learning failure. The diagnostic test is designed to probe deeper into the causes of learning deficiencies that are left unresolved by formative testing. All we are attempting to do here is to show that formative and diagnostic tests can contribute to improve student learning during instruction. And by so doing, formative and diagnostic tests help teachers to make intelligent and wise decisions about the effectiveness of their teaching methods and the appropriateness of their subject-matters.

In addition to improving instructional decisions, the use of tests, in general and achievement tests in particular, can aid learning by:

- (1) Improving student motivation;

- (2) Increasing retention and transfer of learning; and
- (3) Providing feedback concerning instructional effectiveness¹.

Each of these will be discussed in turn.

Testing and Motivation:

Periodic testing motivates students by providing them with specific goals to work for, and by providing them with immediate feedback concerning their achievement and learning progress. If tests are carefully constructed and if goals and expectations are clarified and shared between student and teacher, there is no reason to worry about the side effects of testing such as anxiety and fear. Fear and anxiety can be reduced or even utilized to generate greater learning activity. Thus, properly constructed tests can motivate students to work toward the specific goals of a course by inviting greater learning activity, by directing this activity toward the intended learning objectives, and by providing prompt knowledge of results.

Periodic testing can also aid student motivation by helping individuals understand themselves better so that they can make more intelligent decisions about their future. Formative testing, for instance, and feedback of the results can help students gain insight into the things they can do well, the misconceptions that need correction, the degree of skills they have in various areas, and the like. Such information provides the student with a more objective basis for planning a study program, for selecting future educational experiences, and for developing self-evaluation skills. With better self-understanding, the degree of motivation among students is likely to increase.

Testing and Retention:

Since tests tend to direct students' learning efforts toward specific goals, they can be used as tools for increasing the retention and transfer of classroom learning. In general if tests are oriented toward the evaluation of learning at the

understanding, application, and interpretation levels, the retention of skills and subject-matters are likely to remain longer and to have greater transfer value than knowledge at the recalling level. Thus tests, in this sense, can be used to supplement and complement our teaching efforts in these areas and thereby increase the likelihood that learning will be of greater permanent value to students. To achieve this goal, test-constructors are often urged to de-emphasize recognition or simple recall of isolated factual details. They are advised to shun tests of this type in favor of tests that emphasize comprehension, interpretation, application, analysis, synthesis, and evaluation. They are cautioned to guard against items which can be answered on the basis of sheer rote memory because this can be counterproductive to long-term retention, and to the transfer of learning. In the last section of this paper, we will see how these principles can be incorporated in reading comprehension tests.

Testing and Feedback:

We have already explained how the test results can be used to improve and enhance learning. But this is not the whole thing. Information provided by test results can be utilized to evaluate various aspects of teaching. It can help to determine the extent to which the content of the curriculum is realistic, whether methods and teaching strategies are appropriate, and what course of action can be taken in response to such questions. When the majority of the students do poorly on a test - particularly a formative test - this may partly be the fault of the students, but the difficulty is more apt to be found in the instruction. The teacher may be striving for goals that are, for some reason, unattainable by the students, or he may be using ineffective methods to communicate content to his students. With this broad view of testing, it is reasonable to argue that teaching without testing is unthinkable, and testing is just as important to learning as teaching is.

The following discussion will demonstrate how the principles and objectives of achievement testing can be manifested in reading comprehension tests.

Testing Reading Comprehension:

Most foreign students study a language with the end goal of reading and understanding the printed page. This emphasis on reading comprehension is quite justifiable particularly if we bear in mind that most foreign students study English to be able to read the advanced literature in their field of specialization which might be unobtainable in their native language. In addition to this, overemphasis on speaking and pronunciation might be a waste of time as most of the foreign students might not have the opportunity to travel abroad to practice their speaking skills.

Reading comprehension tests often include as one of their parts a vocabulary test. The reason for this is that satisfactory comprehension of any printed materials depends in part on knowledge of vocabulary. For effective reading comprehension, lexical mastery is, therefore, indispensable. However, there are other skills besides lexical mastery upon which understanding and reading comprehension depends. Skills such as the ability to make inferences, to analyze, to interpret, and to pass on a value judgment are indispensable to effective reading. The question is: Are these skills testable? The answer is positively yes. It is my contention, from the start of this paper, that anything that is teachable is also testable and vice versa.

Passages in reading comprehension tests should be meaningful and relevant to the examinees. Insofar as we are dealing with achievement testing, reading passages should provide some contextual clues to meaning to help the learners see the point. These characteristics and others will be demonstrated in the following sample of a reading comprehension test which is specially designed for advanced EFL learners. The author assumes that passages similar to the ones presented in the test were

previously studied in class and that most of the vocabulary items are within the capacity level of the students.

Reading Comprehension Sample Test

Time: 10

Directions:

Below the following passage, you will find questions or incomplete statements about the passage. Each statement or question is followed by a number of words or expressions. Select the word or expression that best fits each statement or answers each question in accordance with the meaning of the passage. Students should manage to read the passage as quickly as possible.

Passage:

The teaching of a foreign language, unlike that of content subjects, can be, and frequently is, extremely frustrating and wasteful. The most immediate example of this is the so-called Intensive English Language Program at Sanaa University. Students enter the university after having done about six years of English at the intermediate and secondary level. Yet a large number of them are not in a position to produce a simple sentence in English. What is even more disappointing and discouraging is that there is almost no improvement in the competence, the ability to produce and communicate in English, of a sizable number of these students even after four years of being taught English at the University.

It is customary to blame this state of affairs on the teachers, the courses, and the methods used for teaching English as a foreign language. The teachers, in their turn, rationalize their failure and frustration by alluding and referring indirectly to the physical inadequacies of their teaching situation, e.g., inordinately large classes, unsuitable rooms and furniture, insufficient hours of teaching, and ineffective administrative control over students' class attendance and performance.

Example:

The passage is principally concerned with:

- (A) Teaching of English at Sanaa University.
- (B) The inadequate facilities of Sanaa University.
- (C) The consequences of ineffective control over students' attendance.
- (D) Problems of teaching English as a foreign language at Sanaa University.

Choice (D) is correct and most specific.

The Questions:

- (1) Which of the following can be inferred about Sanaa University?
 - A) It only admits students who had six years of English language instruction.
 - B) It offers intensive English language courses for four years.
 - C) It does not have enough rooms and furniture.
 - D) It needs more effective and stimulating methods for organizing and directing the English as a Foreign Language Program.
- (2) According to the author, Sanaa University students had instruction in English before joining college for:
 - A) One year.
 - B) Two years.
 - C) Six years.
 - D) Had no instruction in English at all.
- (3) By "this state of affairs," the author refers to:
 - A) Ineffectiveness of the administration.
 - B) Teachers' recklessness.
 - C) Insufficient hours of teaching.
 - D) Poor performance on the part of the students.
- (4) The word rationalize in the passage is used to mean:
 - A) Explain in a logical way.
 - B) Verify.
 - C) Illuminate.
 - D) Refer.

- (5) By stating that the teaching of a foreign language is "unlike that of content subjects," the author means that:
- A) The English language is different from other content subjects.
 - B) The teaching of English differs from that of other content subjects.
 - C) The English language lacks content.
 - D) English is boring and frustrating.
- (6) The teaching of English at Sanaa University is retarded because of:
- A) Lack of interest on part of the students.
 - B) Lack of motivation on part of teacher.
 - C) Lack of cooperation and understanding between teachers, students, and administrators.
 - D) None of the above.
- (7) The author's attitude toward the teaching of English at Sanaa University is:
- A) Pessimistic.
 - B) Optimistic.
 - C) Neutral.
 - D) Characterized by a great deal of concern and worries.
- (8) By 'alluding' the author means:
- A) Indicating.
 - B) Explaining.
 - C) Implying.
 - D) Describing.
- (9) The author implies that the teaching of English can be "frustrating" and "wasteful" if:
- A) The number of students in class is too small.
 - B) It is not accompanied by improvement in students' performance and competence.
 - C) There is no cooperation between teachers and administrators.
 - D) Both (B) and (C)

- (10) The word that can best stand for "inadequacies" is:
- A) Deficiencies.
 - B) Insufficiencies.
 - C) Inefficiencies.
 - D) Dissatisfaction.

Test Key:

- | | |
|-------|--------|
| (1) D | (6) C |
| (2) C | (7) D |
| (3) D | (8) C |
| (4) A | (9) D |
| (5) B | (10) A |

Test Rationale:

Testing reading for the advanced level does not limit itself to the level of rote memorization; rather it includes skills and techniques for the understanding and analyzing of the material at hand. This requires a certain speed-rate and specific reading skills to get the needed information efficiently and rapidly from the assigned reading passage(s).

Our objective in constructing this test is to measure the speed and ease with which advanced EFL learners can encode and decode messages. The emphasis then is not simply on determining the student's control of the basic signalling devices, but also on his understanding of the semantic and syntactic implications of such signalling devices. Speed is unquestionably an important aspect of language mastery.

To achieve this goal, our test includes different types of questions which vary in degree of difficulty. The test questions fall in the following categories.

- (1) Questions that require knowledge of specific facts, e.g., Question No. 2.
- (2) Questions that require inferences or implications from the reading passage and which are not directly stated in the selection as in Questions No. 1, 3, and 7.
- (3) Questions that require synthesis as in No. 6.

- (4) Questions that require syntagmatic understanding - that is, questions that require an understanding of the fusion of two or more linguistic signs or elements in a word, phrase, or idiomatic expressions as in Question No. 3.
- (5) Questions that require lexical mastery as in Nos. 4 and 8.

By virtue of being formative, this test provides certain contextual clues to help the examinees to understand vocabulary meaning. These contextual clues are presented by means of:

- I. Synonyms: as in the sentence, "What is even more disappointing and discouraging is that".
- II. Definitions: The word is explained or defined by the author as in the sentence "by alluding and referring indirectly".
- III. Relevancy: The meaning is clarified by the relevancy of the subject matter to the experience of the learner. So far as this test is constructed for EPL students at Sanaa University, its content is related to their own personal experiences. Meaningful content ensures motivation and enhances successful learning.
- IV. Summary: An idea or situation expressed in different ways is summed up in one word or expression. The whole phrase, "inordinately large classes, unsuitable rooms and furniture, insufficient hours of teaching, and ineffective administrative control over students' class attendance and performance," is summed up by the expression of "physical inadequacies of their teaching situation."

The idea behind giving such contextual clues is to increase the learner's reading-speed and to improve his/her other reading skills. Clues are provided to help the learner to see the point. It is from this perspective that formative tests can be perceived as an aid to learning. This is, of course, besides the follow-up activity which is based upon the test results, and which is primarily conducted to offset learning difficulties.

Concluding Remarks:

In concluding this paper, I would like to reiterate my proposition that testing is not incompatible with learning, and that if care is taken in test-construction, testing can in fact improve the quality of both teaching and learning. This paper attempts to explain the interrelationship between teaching and learning. A special emphasis is given to achievement tests particularly to formative and diagnostic testing. The last section of the paper focused on reading comprehension tests, their values and characteristics. A sample reading comprehension test was presented at the end of the paper to illustrate how formative reading comprehension tests can be constructed in such a way to aid learning.

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EDUCATIONAL THEORY AND TESL/TEFL:
WHERE THE ANTIPATHY HAS LED TO

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This paper argues that the failure of second and foreign language educators to keep abreast of developments in curriculum and instruction design has led to inefficient teaching and consequently to underachievement in many ESL/EFL classrooms. Evidence to support this thesis is cited from current existing material. It is also maintained that of all the factors that influence second and foreign language achievement, teachers can only have control over the learners' motivation and the quality of instruction. The linguist has little to offer in these two areas. If this is accepted, we must turn to main stream educationists, especially those working in curriculum and instruction design for advice. It becomes imperative, then, to call for more co-operation between TEFL/ers and the generalists.

1. Linguistics and teaching ESL/EFL

It must be owned that the ESL/EFL scene is dominated, perhaps overwhelmed by controversies over the nature of language and language acquisition. Indeed, the changes in ESL/EFL methodology reflect corresponding changes in our thinking about language and language acquisition. Language teaching is largely influenced by three strongly related fields: Linguistics, psycholinguistics and sociolinguistics. "In the U.S. it is generally assumed that the body of knowledge that TEFL, indeed all language teaching, whether it be the teaching of the first or second language must rest on is linguistics, including psycholinguistics and sociolinguistics" (Womack 1969:13). This emphasis on linguistics and psycholinguistics as the main sources of our knowledge about language teaching has taken away the attention of language educators from another very important source, namely education science. Bruce Pattison (1968:9) has warned us that, "The substitution of linguistics for education as the governing

factor in language teaching will be disastrous." It is quite a difficult task to try to ascertain if this statement has been prophetic or not. At the same time it is not difficult to produce evidence to the effect that SL/FL programmes are facing tremendous difficulties in that foreign language learners are achieving but limited success. (Pimsleur 1963, Jakobovits 1968: 182, 1970: 248, El Fadil 1975, Bangole 1977, Carroll 1982).

2. What causes underachievement?

It is still important to ascertain the causes of this underachievement. It is generally accepted that four factors determine success in learning a foreign language, namely, general intelligence, aptitude, motivation and quality of instruction. (Jakobovits 1970:104). It can be argued that teachers have control neither over their pupils' intelligence nor over their aptitude, but that they can influence the motivation of their pupils (Allwright 1977:273, Finnocchairo 1977:3) as well as the quality of instruction. Gardner and Lambert (1972:1), however, dismiss method as a determining factor in foreign language success on the ground that students in the same class and taught by the same method attain different levels of achievement. This argument can be rejected for a number of reasons. For one thing, the proportion of achievers as compared to under-achievers is not always made clear. It is possible and, indeed, can be substantiated by figures (El Fadil 1975:12, Carroll 1982:5) that the proportion of achievers is relatively small if compared with the under-achievers. For another, it is not very important whether we are using the audio-lingual method, the cognitive-code method or the functional approach, but what really matters is how efficiently this or that method is being applied. As Mackay (1965: Introduction) points out, we have to distinguish between "the method and the teaching of it." Thirdly, motivation can be an effect of success in foreign languages and not a cause (Pimsleur 1963:44). It is also possible that lack of motivation can be the result of bad teaching (Jakobovits 1970:84). Fourth,

there is evidence to the effect that instrumentally oriented students achieve equally well as integratively oriented students (Lukmani 1972:272, El Fadil 1975:286).

3. Assigning Roles

Therefore there are at least two factors which teachers can control, namely, motivation and the quality of instruction. The obvious question to ask is how teachers can enhance the motivation of their pupils and improve the quality of their teaching. Presently teachers are seeking this help from linguistics, psycholinguistics and sociolinguistics (Finnochairo 1977:3, Rivers and Temperlay 1978: Preface, Broughton, et al 1978, 1980:38). However, there are some language educators, and the writer is one of them, who strongly argue that language descriptions, however powerful, cannot show teachers how to teach foreign languages (Wardhaugh 1969:11, Krohn 1970:103-108, Paulston 1976:6). If we are to define some of the roles and functions of the linguists, the sociolinguists, the psycholinguists and the instruction designers, we can say this; it is the role of both the linguists and the sociolinguists to describe language not only as a system, but as one that works in a social context. The linguist and the sociolinguist have to tell us: "What does a person have to "know" in order to have mastered a foreign language properly? (Johnson 1982:20). The psycholinguists will have to enlighten us on how second and foreign languages are learnt. But it rests upon instruction designers, i.e., the generalists, to propound a theory of second and foreign language teaching based on the findings of the linguists, the sociolinguists and the psycholinguists.

Unfortunately, the wall that separates language educators from the education sciences becomes higher and higher with every generation of new language theories and descriptions and as language educators herald the new insights into language as the long awaited panacea for the troubled foreign language classroom, they are thus cut off from the field of education science, the

one area where it is most likely to find answers to most of the problems of the foreign language classroom. Politzer (1981:31) has observed that:

There is some truth to the statements that (1) foreign language teaching researchers do not utilize the sophisticated paradigms that have been developed by the generalists and that (2) the generalists do not utilize the language teaching field for this research. With occasional and rare exceptions the fields of general teaching research and foreign language teaching research tend to ignore each other. However, the reason for this phenomenon is not simply ignorance or narrowmindedness.

4. Some faulty instruction practices

One of the effects of this phenomenon is that not only most TEFL manuals and programmes, but also some teacher's guidebooks advocate certain teaching techniques viz pair practice, role play, problem solving, yet they seldom propound a systematic, objective-based approach to teaching as instruction designers exhort us to do. Furthermore, we rarely see a lesson plan in TEFL manuals. On the rare occasions when we do fall upon one, we notice that the lesson plan deviates in many ways from the standards and principles drawn up by the generalists. If we compare the lesson plan in Broughton et al (1978, 1980:179) with the lesson plan in Gagne and Briggs (1974, 1979:196-215) we can perceive the gap between instruction designers and TESL/TEFL practitioners. For one thing the plan in Broughton et al (1978, 1980:179) does not state the lesson objectives operationally. The statement of aims says: "1. Revise 'giving directions' 2. Punctuation of direct speech via picture story" (Broughton et al 1978, 1980:179). It may be observed that the first statement describes the teaching activity while the second statement tells us about the object to be taught, rather than the expected outcomes. Hence it is very difficult

for the teacher, or any other observer to ascertain if the learners have, in fact, attained the stipulated objectives. Popham and Baker (1970:43-44) advise us that:

The more clearheaded the teacher is about what he is attempting to accomplish with his learners, the more easily he can accomplish it and the more readily he can judge whether he has accomplished it. There is undoubtedly a positive relationship between teacher's clarity of instructional goals and the quality of his teaching.

Instances of lack of expertise in such important questions of instruction as writing operational statements of objectives (Gagne and Briggs 1974, 1979) can be seen in any of the teachers' books from either the Crescent English Course or Evans Brothers, New System English. The authors of these two courses have wisely elected to write aims for each of the lessons of their course, but have, by and large, been unsuccessful in writing down useful statements of objectives, simply because most of the statements they have written describe not the intended educational outcomes, but rather the process of teaching. Instead of advising both teachers and pupils what the latter will be able to accomplish at the end of the lesson or unit, they describe what the teacher will be doing during the lesson. Let us take as an example the statement of aims in period 2 of unit 1 in Evans Brothers, New System English (1982:35) which says: "1. to teach the vowel sound in 'leave'. 2. to give more practice in saying who you are. 3. to teach how to write." It can easily be observed that all of these three statements are vague and consequently of limited use. If we consider the first of these aims we can see that it is not clear whether the intention is to make the learners recognize the vowel sound in leave, or to make them pronounce the vowel (i:) in leave, or even to make them pronounce the whole word. All these interpretations are possible and that is why it is nigh impossible to ascertain if this aim has been

achieved or not. If this statement is to be made more useful, we will have to be clear in our minds about what we want the learners to accomplish at the end of the lesson. For instance, the authors could have written: By the end of the lesson all pupils will be able to recognize and pronounce the vowel sound in 'leave' as contrasted with the vowel sound in 'live'. In this way we have a better chance of evaluating the effectiveness of instruction.

Besides the fact that operationally stated objectives help in evaluating the success of instruction they are useful in at least three more ways. First, when specific outcomes are indicated, it is easy to select the content, strategies and tactics that are most effective in reaching each objective. Secondly, we can be more realistic about what we hope to achieve in a certain period of time. Thirdly, the needs of different students for either remedial work or more advanced learning outcomes can more easily be determined, planned for and evaluated (Hannah and Michaelis 1977:25).

It still remains to be said that TESL/TEFL practitioners need to acquaint themselves with the "sophisticated paradigms developed in general teaching research." (Politzer 1981:31). They have to come out of their linguistic shells and collaborate with researchers in the field of general teaching research with the hope of developing an effective language teaching theory. Bridges will have to be built between departments of linguistics and departments of curriculum and teaching methods. If such bridges are not built, we are likely to be in for another decade of ineffectiveness in the TESL/TEFL classroom.

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LINGUISTIC ANALYSIS AS AN INPUT TO COURSE DESIGN

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1. Introduction

It should be emphasized from the outset that the linguistic discussion in this paper is by no means intended as an end in itself. It is rather attempted with the following two main aims in mind:

- a. testing the validity of a hypothesis that could serve as a basis for the selection of materials in designing ESP 'English for Specific Purposes' medical courses.
- b. reporting some linguistic features of the written language in medical-surgical-nursing texts. The findings are assumed to be useful in designing materials for the second year nursing students in the University of Jordan.

The study is an analysis of VERBS that occur in different parts of a textbook on medical-surgical nursing. Sample texts were taken from different topic areas, but in each topic area the specific subject of "management" (in medical terms) was used as the text source (table 1).

The features chosen are:

- a. Verbs as Lexical Items.
- b. Verbs as Grammatical Forms.
- c. Verbs Form-Function Relationship.

The implications of this study for course design are summarized at the end of this paper.

2. Linguistic Features2.1. Feature 1: Verbs as Lexical Items

The main purpose here is to establish whether there is a 'common core' vocabulary among the four texts studied.

A striking finding was the constant repetition of certain verbs that were associated with particular functions, all of which under the heading 'Management.' For example, the following verbs were found to be frequently and constantly used to express

the function of treatment: apply, attend to, carry out, do, give, use, treat. Certain verbs, however, were used more frequently than others, e.g. use, treat, etc.

It was thus concluded that the four texts were similar in that many verbs were repeatedly used with varying frequency in more than one text.

2.2. Feature 2: Verbs as Grammatical Forms

A. Verbs that occur without modals: Voice and Tense. A first observation was that both Active and Passive forms were equally used as far as their frequency in each text was concerned.

Another finding was that out of the total number of verbs that occurred without modals in each text, about 50.3% were used in the Active Voice. This, in turn, meant that the Active Voice as well as the Passive Voice forms were equally frequent and equally distributed in the texts of the corpus.

As for the Tense of the verbs that occurred without Modals, the Simple Present was noticed to be the most frequent in each of the four texts (89.1%).

The absence of the Simple Past verbs was noted (1%). Similarly, the Present Progressive and Perfect tenses were found to be rarely used (see table 4 for details).

One could therefore conclude that there is not a significant variation among the texts as far as Tense is concerned.

B. Verbs that occur with Modal auxiliaries: Voice. A major finding was that both forms, Active and Passive, were, relatively speaking, equally frequent and distributed.

As far as the frequency of Modals was concerned, it was observed that:

- a. MAY was the most frequent in the four texts (44.3%) in relation to the number of verbs used with modals. Neither was there a significant variation in the distribution of this modal in the corpus.
- b. SHOULD was the second most frequent verb in each of the texts (14.4%).
- c. MUST, CAN and WILL respectively were less frequent modals.
- d. COULD, SHALL and MIGHT were almost absent in the corpus. (see tables 6, 7, 8)

2.3. Feature 3: Verb Form-Function Relationship

The following communicative functions were identified in the corpus:

- a. Cause and Effect
- b. Signs and Symptoms
- c. Surgical Intervention and Treatment

The description of Cause and Effect was found to be realized in one of the following forms:

1. Simple Present (Active)
2. Simple Present (Passive)
3. Modal + Verb (Active)
4. Modal + Verb (Passive)

A possible explanation of the use of the Simple Present could be related to what might be described as 'a great deal of certainty.' The notions of 'certainty and potentiality' can, on the other hand, be related to the use of the modals MAY and WILL respectively.

Verbs that were found to be associated with the description of Cause and Effect included: cause, result, result from, result in, lead to, give rise to, produce, increase, decrease, affect etc. (see tables 9, 11, 13)

MAY and CAN are used in the realization of Signs and Symptoms when there is a sense of 'expectation' and where no reference is made to a particular patient's case. When the writer seems to be quite certain about the types of Signs and Symptoms that indicate certain diseases, the Simple Present (Active) was found to be frequently used. (see tables 14, 15)

The following grammatical forms were noticed to be the most frequent exponents of Surgical Intervention and Treatment:

1. Simple Present (Passive)
2. Modal + Verb (Passive)
3. Modal + BE + ADJ

In the medical context, at least, the Simple Present (Passive) is best described as an expression of 'a standard form of practice' or 'a known procedure'. (see table 17)

A functional relationship was also found to exist between the use of Modal + Verb (Passive) and the suggestion of either a type of treatment or a particular method of treatment. (table 19)

However, when there is a suggestion of a particular course of treatment to a particular expected 'condition' it was observed that MAY + BE + ADJ form was frequently used. (see table 20)

Finally, a relationship was established between the use of MUST and SHOULD and what we might term the 'indication of degrees of necessity' in the application of treatment. Used mainly in the Passive form, MUST and SHOULD were the two main devices to express Top Necessity and Importance respectively. However, when there is a degree of 'freedom' and 'flexibility' in the application of treatment, MAY was found to be frequently used. (see table 21)

3. Implications for Course Design

The findings that have been reported in this study can be best looked at on two levels. First, at the theoretical level, the overall conclusion made was that the four different texts in the corpus were similar to a great extent in the way language was used. There were no significant differences in the basic vocabulary used as represented by verbs. There were also no differences in the frequency and distribution of the common forms that were found to be exploited. Indeed, the results indicated a great deal of consistency in the three aspects studied, i.e., lexical, formal and functional.

What can be concluded, then, is that this 'management' unit can be taken as a representative sample of most, if not all, other 'management' units in the book. We can also conclude that if we set out to teach these language items, i.e. forms, lexis and functions, we can confidently assume that we are teaching the language of a representative sample.

Having pointed that out, I should like to add that in the literature of ESP medical courses we do not seem to find any research-supported criteria on which materials selection has been based.

To prove this, I attempted a review of nine ESP textbooks for medical students published between 1971-1980. The most striking observation was that the majority of these materials

did lack a basic input, that is, of research into the linguistic features of the language claimed to be taught.

Equally interesting is the fact that Ewer (1981a) has pointed out in a similar survey of EST 'English for Science and Technology' books:

"Although the textbooks examined claim unreservedly to teach the language of science and technology, there is little evidence that their authors have made the necessary effort to find out what this language consists of in the first place."

Another similar conclusion was made by Robinson (1980):

"... very few books are based on any kind of register analysis."

Thus, there seems to be no reason why we should not base our ESP materials on linguistic research into the key features of the language of the particular science that we want to teach.

Preparation of ESP teaching materials, according to Widdowson (1979) should be based on 'rhetorical units of communication,' because this is an 'inescapable' commitment 'once we accept the teaching of communicative competence as our prime objective.'

If it is true that the basic functions, i.e. the description of Cause and Effect, Signs and Symptoms and Treatment in the textbook, which is about 1000 pages, are similarly realized linguistically, then the materials designer can select his or her sample of authentic language more easily, provided that the linguistic features of such sample have been adequately researched and specified.

At the practical level, the previous linguistic analysis can be useful to the selection and design of ESP materials for the students of medical sciences in the University of Jordan. The analysis is based on a textbook which is being taught as a major course book for the second year nursing study. Knowing that none of the nine ESP medical textbooks surveyed has thoroughly incorporated the realizations of three main functions in the medical and nursing discourse, i.e. Cause and Effect, Signs and Symptoms, and Treatment, the findings can be, and have been, particularly useful in designing materials for the second year nursing students in the University of Jordan.

Whatever the type of syllabus - structural, functional or communicative - the materials writer is equipped with a tool that enables him/her through linguistic analysis, to have a clear picture about

- a. the major communicative functions in medical discourse.
- b. the linguistic realizations of such functions.
- c. the basis on which it can be assumed that a representative sample of authentic language is being taught.

Table 1

1.	TEXT A	
	(a) Communicative Unit	: 'Management of Persons with Inflammations'
	(b) Chapter No. 3	: 'Body Defense Mechanisms'
	(c) Section No. 1	: 'Health and Illness'
2.	TEXT B	
	(a) Communicative Unit	: 'Management of Patients with Urinary Incontinence'
	(b) Chapter No. 13	: 'Incontinence'
	(c) Section No. 3	: 'Common Problems Encountered in Medical-Surgical Patients'
3.	TEXT C	
	(a) Communicative Unit	: 'Management of the Person with Liver, Gallbladder, and Pancreatic Disease'
	(b) Chapter No. 25	: 'The Patient with Disorders of the Liver and Adjacent Structures'
	(c) Section No. 4	: 'Nursing Care of Persons with Specific Medical-Surgical Problems'
4.	TEXT D	
	(a) Communicative Unit	: 'Management of the Patient with Burns'
	(b) Chapter No. 34	: 'The Patient with Burns'
	(c) Section No. 5	: 'Nursing Acutely Ill and Injured Persons'

Table 3: Distribution of Verb Forms in the Four Texts

	TEXT A	TEXT B	TEXT C	TEXT D
Number of words	5600	5220	5940	8140
Number of verbs	709	718	699	1040
Ratio of verbs to number of words	12.6%	13.7%	11.7%	12.7%
Number of verbs without Modals	225	192	225	356
Ratio of verbs without Modals to total number of verbs	35.9%	26.7%	32.1%	34.2%
Number of verbs with Modals	110	144	163	160
Ratio of verbs with Modals to total number of verbs	15.5%	20%	23.3%	15.3%
Number of verbs in the Infinitive form	80	104	64	111
Ratio of Infinitive verbs to total number of verbs	11.2%	14.4%	9%	10.6%
Number of verbs in the Participle form	177	180	145	294
Ratio of verbs in the Participle form to total number of verbs	24.9%	25%	20.7%	28.2%
*Number of BE verbs	78	84	88	110
Ratio of BE verbs to total number of verbs	11%	11.6%	12.5%	11.5%
*Number of HAVE verbs	10	14	11	9
Ratio of HAVE verbs to total number of verbs	0.014	0.019	0.15	0.008

* BE and HAVE are not used here as auxiliary verbs but as main verbs in the sentence.

Table 4: Frequency and Distribution of Voice and Tense in Verbs that Occur Without Modals

	TEXT A	TEXT B	TEXT C	TEXT D
Number of Verbs	255	192	225	356
No of Active Voice Forms	133	104	108	168
Ratio of Active Voice Forms to total No of Verbs	52.1%	54.1%	48%	47%
No of Passive Voice Forms	122	88	117	188
Ratio of Passive Voice Forms to total No of Verbs	47.8%	45.8%	52%	52.8%
No of Simple Present Tense Forms	241	162	195	324
Ratio of S. Present Tense to total No of Verbs	94.5%	84.3%	86.6%	91%
No of Perfect Tense Forms	9	12	25	14
Ratio of Perfect Tense Forms to total No of Verbs	0.035	0.062	11%	0.039
No of Past Tense	-	2	3	7
Ratio of Past Tense Forms to total No of Verbs	-	0.010	0.013	0.019

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Table 5 : Frequency and Distribution of Voice Forms in Verbs that Occur with Modals

	TEXT A	TEXT B	TEXT C	TEXT D
Number of Verbs	209	718	699	1040
No of Verbs with Modals	110	144	163	160
Ratio of Verbs with Modals to total No of verbs	15.3%	20%	23.3%	15.3%
No of Active Voice Forms	43	80	70	74
Ratio of Active Voice Forms to No of Modal Verbs	39%	55.5%	42.9%	46.2%
No of Passive Voice Forms	67	64	63	86
Ratio of Passive Voice Forms to No Of Modal Verbs	60.9%	44.4%	38.6%	53.7%

Table 6: Frequency and Distribution of Voice Forms in MAY Verbs

	TEXT A	TEXT B	TEXT C	TEXT D
Number of Verbs with MAY	48	56	68	85
Ratio of MAY Verb to total No of Modal Verbs	43.6%	38.8%	43.7%	53.1%
No of MAY Verbs in Active Voice Forms	24	42	37	45
Ratio of Active Voice Forms to total of MAY Verbs	50%	75%	54.4%	52.9%
No of MAY Verbs in Passive Voice Forms	24	14	31	40
Ratio of Passive Voice Forms to Total No of MAY Verbs	50%	25%	45.5%	47%

Table 7: Frequency and Distribution of Voice Forms: SHOULD Verbs

	TEXT A	TEXT B	TEXT C	TEXT D
Number of Verbs with SHOULD	36	29	35	33
Ratio of SHOULD Verbs to total No. of Modal Verbs	23.7%	20.1%	33.7%	20%
No. of Active Voice Forms	9	14	16	13
Ratio of Active Voice Forms to total No. of SHOULD Verbs	25%	48.7%	29%	39.4%
No. of Passive Voice Forms	27	15	39	20
Ratio of Passive Voice Forms to total No. of SHOULD Verbs	75%	51.7%	70.9%	60.6%

Table 8: Frequency and Distribution of Verbs that Occur with Other Modals

	TEXT A	TEXT B	TEXT C	TEXT D
Number of Verbs with CAN	11	31	20	26
Ratio of CAN Verbs to total No. of Modal Verbs	10%	21.5%	12.2%	16.2%
No. of Verbs with MUST	12	23	7	13
Ratio of MUST Verbs to total No. of Modal Verbs	10.9%	15.9%	4.6%	8%
No. of Verbs with WILL	3	5	11	3
Ratio of WILL Verbs to total No. of Modal Verbs	0.027	0.034	0.067	0.018

Table 9: Examples of the Function of Cause and Effect : Simple Present Active

TEXT	VERB	Page/Line	
A	Cause	p. 42 L. 48	Cold Causes vasoconstriction, ...
B	Cause	p. 201 L. 81	As A Foreign body, it causes irritation of the urethral and bladder mucosa .
C	Cause	p. 543 L. 82	Furthermore, drugs such as the barbiturates are also poorly tolerated and cause an increased cerebral sensitivity to central nervous system depressants of any type .
D	Cause in- crease	p. 90 L. 3 L. 1	Burns increase the production and loss of heat, and water vapour is lost throughout the open wound; these in turn cause increased metabolism and weight loss.

**Table 10 : Examples of the Function of Cause and Effect:
Simple Present Passive**

TEXT	VERB	Page/Line	EXAMPLE
A	Cause	p. 45 L. 83	It is caused primarily by clostridium perfringens, ...
C	Cause	p. 542 L. 21	Hemolytic jaundice presumably is caused by destruction of great numbers of blood cells, which results in the production of excessive amounts of bilirubin and inability of the liver to excrete the bilirubin as rapidly as it is formed,
D	Cause	p. 924 L. 64	This is particularly true when the burn is caused by electricity or by X-rays .

Table 11 : Examples of the Function of Cause and Effect :
Modal + Verb (Active)

TEXT	VERB	Page/Line	EXAMPLE
A	Cause	p. 46 L. 48	If solutions containing enzymes are used, however, care should be taken to keep them off the normal skin, where they will cause irritation.
B	Cause	p. 205 L. 39	Uninhibited bladder contraction, urinary tract infection, or other pathologic conditions may cause enuresis
C	Cause	p. 543 L. 63	The patient's fingernails should be cut and hands kept clean, since itching may be so severe that the patient may excoriate the skin by scratching and may cause skin lesions, which heal very slowly.
D	result	p. 921 L. 23	The patient must be helped to maintain range of joint motion and thus prevent scars from healing in positions that will result in deformity.

Table 12 : Examples of the Function of Cause and Effect : Modal
+ Verb Passive

TEXT	VERB	page/line	EXAMPLE
A	cause	p. 47 L. 61	An ulcer is an erosion of the skin. It may be caused by infection, second-degree burns, or inadequate blood supply and nutrients to the part.
C	cause	p. 544 L. 57	Direct toxic effects may be caused by drugs (chlorpromazine, tetracycline), by poisons (phosphorus), and by substances used in manufacturing certain products (carbon tetrachloride or methylenediamine (MDA))

Table 13 : Frequent Verbs in the Function of Cause and Effect.

TEXT	VERBS
A	create, affect, produce, facilitate, give rise to, lead to, decrease, increase, inhibit, result in, destroy, dissolve, delay
B	eliminate, prevent, facilitate, prohibit, stimulate, respond to, increase
C	affect, provoke, produce, increase, result in, destroy, result from.
D	eliminate, prevent, facilitate, lead to, reduce, increase, result in

Table 14 : Description of Signs and Symptoms : Simple Present Tense

TEXT	VERB	page line	EXAMPLE
A	feel	p. 43 L. 102	The patient feels cold during the initial stage because of vasoconstriction as the body attempts to conserve heat .
B	be- come	p. 75 L. 200	The patient becomes subject to skin break-down or urinary tract infection, and individual feelings of worthlessness are increased.
C	feel	p. 547 L. 97	During the first few days after the onset of symptoms, the patient feels ill and is content to stay in bed.
D	occur return increase	p. 910 L. 8, 9	A fluid shift occurs in the opposite direction from the initial stage, and edema fluid returns to the vascular system. Blood volume increases, leading to increased renal blood flow and diuresis unless renal damage has occurred.

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Table 15 : Description of Signs and Symptoms : Modal + Verb (Active)

TEXT	VERB	page/line	EXAMPLE
A	develop	p. 47 L. 54	If the infection continues uncontrolled and bacteria reach the bloodstream, septicemia with fever, chills, malaise and increase in the pulse rate may develop.
B	have	p. 203 L. 41	If only the internal sphincter is damaged, the patient may have no acute feeling of the need to void .
C	shrink	p. 547 L. 50	The liver may shrink in size to as little as 600g, in contrast to a weight of 1500m in a normal adult.
D	occur	p. 910 L. 13	Fluid overload may occur, if fluids from intravenous therapy and fluids returning from the interstitial spaces exceed urine production.

Table 16: Frequent Verbs in the Function of Description of Signs and Symptoms.

TEXT	VERBS
A	become, develop, feel, accompany, perspire, appear, occur, notice, complain, follow
B	become, develop, occur
C	develop, feel, accompany, appear, occur, indicate, show, reveal, begin
D	become, develop, appear, occur, complain, rise, fall, begin

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Table 17: Surgical Intervention and Treatment : Simple Present Passive.

TEXT	VERB	page/line	EXAMPLE
A	apply	p. 43 L. 6	Thus, if appendicitis is suspected cold is applied to the lower abdomen to try to prevent rupture of the appendix with subsequent peritonitis and to aid in decreasing pain.
B	do	p. 301 L. 99.	If a catheter must be used for a prolonged period, a cystostomy is frequently done.
C	order give	p. 547 L. 84	If the patient's temperature is high and nausea and vomiting are severe, infusions containing glucose are given and occasionally solutions containing other electrolytes and protein hydrolysates are ordered.
D	notify	p. 912 L. 62	The physician is notified if hematuria and/or a positive Hemastix reaction is present.

Table 18: Surgical Intervention and Treatment : Modal + Verb (Passive)

TEXT	VERB	line/page	example
A	use	p. 44 L. 71	For these reasons, hypothermia may be used to treat serious generalized infections, ...
B	use	p. 203 L. 12	To improvise protection for the incontinent male patient, a shower cap can be used.
C	do	p. 544 L. 76	Rest in bed and general supportive care are presently all that can be done beyond the general measures used for patients with any hepatic disease.
D	wrap	p. 910 L. 52	Once the wound is cooled, the victim may be wrapped for transport to a medical facility.

2. Suggesting a Particular Method of Treatment. (in this case

or is a common feature as well as by or through),

Table 19 : Suggesting a Particular Method of Treatment : Modal + Verb Passive.

TEXT	VERB	line/page	EXAMPLE
A	apply	p. 42 L. 24	Warmth may be applied through dry heat by means of hot water bottle, heating pad, lamp, or flannel covering, or by moist heat in the form of wet dressing or soaks.
B	use	p. 200 L. 104	However, if the patient's condition or response prohibits such a program an internal or external drainage device may be used
C	use	p. 543 L. 32	If prothrombin time is extremely low, mouthwash or cotton swabs may be used instead of a toothbrush to prevent bleeding gums .
D	give	p. 914 L. 2	Antibiotics may be given prophylactically or they may be withheld until an infection does occur

Table 20: Surgical Intervention and Treatment : Modal + BE + Adj.

TEXT	VERB	line/page	EXAMPLE
A	BE	p. 42 L. 48	In those instances when the inflammatory response is not desired, that is, when further tissue damage or increased pain can occur because of the effect of the fluid exudate, application of cold rather than heat may be more effective
B	BE	p. 200 L. 11	In the instances where the cause is tissue damage, repair of the tissues and retaining of muscles may be effective in reestablishing continence.
D	BE	p. 920 L. 45	If the person is unable to eat the quantities of necessary nutrients, total perenteral nutrition (TPN) (p. 158) or tube feedings may be necessary.

**Table 21 : Indicating Degrees of Necessity in Treatment : Modal
+ Verb (Passive).**

TEXT	VERB	line/page	EXAMPLES
A	Keep	p. 43 L. 60	The room should be kept free from dust ;...
A	clear	p. 46 L. 5	Wounds must be cleaned of infection before healing can take place .
B	carry out	p. 200 L. 38	When it is possible, toileting should be carried out in surroundings that will remind the patient of the voiding function, that is, the patient should be taken to a bathroom.
	make attend to	p. 200 L. 89	Again, provision must be made for a minimum intake of 3000ml/day. Mobilization and positioning voiding must be attended to.
D	permit increase	p. 19 L. 19 p. 920 L. 5	Persons with upper respiratory infections should not be permitted near the patient. The proteins, fluid, vitamin, mineral and caloric intake must be increased during the acute phase of burns to maintain the patient's nutritional state, and to repair and replace tissue destroyed or injured by the burn.

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BASIC ACADEMIC REQUIREMENTS OF FRESHMAN STUDENTS
IN DEPARTMENTS OF ENGLISH

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Accommodating freshman students in departments of English with courses that suit their levels in English and, at the same time, go in line with the nature of study in these departments has become a perennial problem in programme and course planning among the staff concerned. Some believe that high scores on the G.S.S.E. exam (or equivalent) entitle these students to follow specialized courses in literature and linguistics. Low scorers, on the other hand, should in their view, be either rejected or accommodated with language courses meant to improve their standard until they cope with major courses offered by the department. Other policy makers in departments of English adopt the placement test as a determinant device of the newly-admitted students' levels of proficiency in English and, hence, accommodate them with courses that match with these levels. Another team of planners would rather allocate fresh students in departments of English on compulsory remedial/introductory language courses no matter what these students' level in English is like.

In this paper I would like to discuss these three different policies balancing the privileges and drawbacks of each from the practical point of view and, in the meantime, attempt a framework of a fourth envisaged to, perhaps, introduce a possible solution to the dilemma of the majority of new students in departments of English as well as to administrative bodies concerned.

1. G.S.S.E. (or equivalent) scores

The secondary school leaver is normally admitted to university on the basis of his or her achievement on the G.S.S.E. (General Secondary School Examination). The level of this achievement determines, in most cases, the college, the department and even the section the student is admitted to. Whether the scores of

this secondary school leaving test indicate the exact level of the student in English has been controversial in many EFL circles. Roger (1982) reports:

"... after ten years' English learning, including six years with English as the medium of instruction for all secondary school subjects except Amharic, the national language (in Ethiopia), first-year university students needed to go right back to the beginning again in English."

Quite a number of EFL specialists believe that there is a real gap between English language courses at the secondary school stage and those at the university particularly in departments of English (Salamah, unpublished). This gap is manifested in the sharp distinctions in course materials, teaching methodology and objectives. It seems common in Arab countries that the pre-university EFL specialists and teachers may not be in touch with their counterparts in the university. One cannot be certain who is to blame in this respect. It might as well be that each party has a sense of belonging to its educational stage. This sense magnifies the sharp distinctions between the secondary school and the university modes of teaching, which widens the gap between the two stages at the expense of the poor students. Even if the EFL course materials and methodology in the secondary school are in line with the latest thoughts in the field, some university language instructors may take students some years back making use of, perhaps, old fashioned methods and techniques or assuming too much on the part of students, or even lacking the minimum experience in language teaching themselves. Some may never have taught at the pre-university level or - worse still - may never have visited a class (Okby, 1982). Also, some lecturers may find it humiliating to teach a language course and firmly believe that this should be the job of junior staff, namely language teachers. Methodology lecturers, instead of teaching language classes themselves, stop at the level of advising, recommending and even warning others about how to improve the situation. This theoretical phase, I believe, cannot be that effective unless the methodologist or linguist himself practises class teaching. This practice may

introduce drastic changes to the method and techniques recommended.

At this juncture, I should make it clear that, there, I am not calling for all lecturers at departments of English to teach language classes as much as calling upon those who have the theoretical background in linguistics and language teaching methodology to try language teaching practice themselves and, hence, spread out their new experience supported by their knowledge in the field. Besides, at the university level, there are expectations on the part of staff members as well as new students. The staff, relying on the high scores of students on G.S.S.E. exams, assume that students are eligible for pursuing lectures on specialized topics in literature or linguistics. The students, on the other hand, may think there is magic in the university that will enable them to understand everything immediately, boasting of the names of staff who are scheduled to teach them disregarding whether they have the basic language skills which entitle them to a reasonable comprehension ability of what they will experience in lectures and other university modes of teaching. These expectations of both parties may worsen the situation.

What could really be of help is an honest attempt to bridge the gap between the teaching situation of English at the secondary school level and that at the university one. When this is totally, or even partly, achieved one can trust the G.S.S.E. (or equivalent) scores as a criterion that helps in adequately placing the new student at the department of English within the framework of study programmes in this department.

2. Placement Test

Given that the G.S.S.E. (or equivalent) grades particularly in English may fail, in many cases, to indicate whether the one student, newly-admitted to the department of English, is competent enough to pursue the specialized courses provided by the department, some programme planners prefer to use the placement test as a device assumed to help in the determination of each student's aptitude

or proficiency in the English language as a pass to specialized courses. It can also be regarded as an achievement test in spite of its temporary departure from testing a specific portion of knowledge or information about the language. This creates a kind of perplexity under which label the placement test is to be classified, i.e., aptitude, proficiency or achievement.

The first point that one likes to consider about the placement test is its application on a large scale basis and among heterogeneous groups of students particularly from the specialization point of view. This nature, although it helps in massive testing sessions, may fail to cater for the needs of all testing situations. It does not seem sensible to assume that a placement test is capable of determining the linguistic abilities of a student joining the department of English as it does for those of another student joining a geography department or a scientific one, e.g., civil engineering, chemistry. Unfortunately, a great number of placement tests are designed for masses of students at the expense of their different specialized fields of study.

Besides, a placement test may be a device meant to throw some light on the student's background but it may as well be a springboard to prospective study programmes. Therefore, what may suit one group of students may be inadequate for another. The misconception that makes some test designers confine their work to looking back at the student's background seems to be out of fashion nowadays. A good placement test is seen as a link between two stages of education in testing the areas (in the linguistic background) which seem relevant, and perhaps basic, to prospective study programmes.

So, a placement test should try to emphasize the items assumed to be included in the student's linguistic background and, meanwhile, orient him towards his future courses. Such a demand is not an easy job as it necessitates a closer look at a large body of information on the student's educational background as well as his present and future needs. With the limitations and obstacles

assumed to obstruct the course of this project, one tends to feel the lack of its feasibility. However, it seems essential to consider the student's background in the light of the macro and micro language skills associated with prospective courses in departments of English. An analysis of these skills, besides its significance in the syllabus design of language courses, at the university level, is of no less importance to placement tests. It certainly enlightens the examiner on which items to select for which levels and, therefore, enables him to determine the category the testee falls under. Thus, analysing the actual needs of students can be, somehow, incorporated into the placement test to measure their competence or incompetence to pursue their subsequent courses. In addition, identifying the areas of weakness may highlight the need for elementary or preparatory language courses mainly designed to overcome these weaknesses. Thus, the placement test can act as a stimulating factor towards bridging the gap (mentioned earlier) between the secondary school language programmes and those of the university, particularly in departments of English.

It can, therefore, be inferred that the significance of the placement test as stated above stems from its content and form. The traditional placement test consists of a section for vocabulary, another for structure, a third for reading comprehension and sometimes a fourth for listening comprehension. The question that immediately strikes one's mind is whether these four sections represent all language skills and abilities. We admit that the reading comprehension section may test and determine the student's degree of thinking and understanding the text that he is asked to read. Likewise, the listening comprehension (if used) may manage to test and determine the student's ability in understanding the portion of language discourse he is asked to listen to. Nevertheless, the remaining two sections, i.e., vocabulary and structures are not directly associated with specific language skills particularly if we consider how isolated and separated from connected speech they are used in traditional placement tests. Further,

writing and speaking as unique language skills do not receive due attention in any of these types of tests (Zughoul, 1983). Despite the recent efforts of communicative testing (Carroll, 1981; Lukmani, 1982) which are meant to measure more than isolated language skills, the traditional form of test with its aforementioned four sections is still predominant. However, one should vote for the new trends in testing considering the combination of various sub-skills exactly as people do when they exchange ideas orally or in writing putting this into effect through the 'close' which is regarded by many specialists as a valid test of all proficiency, (Aitken, 1977; Oller, 1980; Schohamy, 1982), 'precis writing', 'essay', 'interview', ... etc. testing techniques. The view that discourages test designers from integrating speaking and writing sections in placement tests owing to the difficulty in their measuring procedures should not be the criterion for overlooking them. Their vital importance in the nature of the university style of education should be reflected in placement tests in one way or another.

In the current forms of placement tests the student who manages to choose the correct completion to a sentence, whether lexical or structural, is not given the chance to think of proper connected speech or text. Neither is he allowed to rely on his own thinking being preoccupied with how someone else thinks. In other words his creativity is not stimulated. Moreover, this process of searching for correct or appropriate items limits his scope within a certain paradigm, whereas in free writing he may manage to put down his thoughts in the form of written stretches comprising lexical and structural items of his own. Even if the student commits a number of errors in this kind of production it can be regarded as a good indicator to the degree of his command of the mechanics, content and style of writing. It seems essential that the testee be free to express his thoughts in writing and evaluated on this basis regardless of the burden this may formulate on the examiner. Furthermore, one has the inclination that the vocabulary and structure sections should depart from the

conventional way of testing their items by avoiding the use of short sentences which hardly have identified contexts and alternating this with more appropriate contexts, e.g., a narration of an incident or a description of a process in the form of a cloze test or the like aiming to train the testee to thematically think of something. This technique adds a teaching flavour to the test, which is recommended as one of the placement test objectives (Madsen, 1983).

Similarly, the speaking skill is normally overlooked in current placement tests. The claim that this skill cannot, practically speaking, be integrated in a written test seems to be unfair. Why should a placement test be confined to written forms? Why shouldn't a test comprise sections tackled in speech? Do language users limit themselves to reading, writing and listening roles? The placement test with its current form unfortunately overlooks a vital section that impinges upon the style of tuition at the university. Besides, one cannot ignore the fact that a language user may be able to identify a language discourse, and yet fail to produce a single utterance, which is the case with a lot of Arab learners of English (Salamah, 1981). Speaking is of no less importance than any other language skill and it has to be incorporated in placement tests regardless of the inconvenience brought about to the examiners. 'Rated interviews', or 'highly structured speech samples' may help examiners form a decision on the oral production of the examinee. Recent studies in discourse analysis may help a great deal in this regard (Coulthard, 1977). If done properly, they pinpoint the areas of weakness in the oral performance of the examinee. Despite the claim that interviews and other oral production testing techniques suggest highly subjective decisions (Heaton, 1975), yet there could be structured speech samples or interviews properly designed to elicit certain responses which in turn indicate the degree of the student's command of language (Harris, 1969). However, there have been a number of techniques meant to test oral performance but they may in actual fact overlap with other

language skills, e.g., 'paper and pencil objective tests of pronunciation', 'reading-aloud'. This overlap violates the consistency of the tested skill. In addition, these techniques and others like 'sentence conversion' and 'response to pictorial stimuli' may limit the examinee's imagination and probably inhibit his fluency which should be the main target of these testing techniques.

With all these points for and against placement tests one can safely state that the placement test in its current condition cannot be relied on for the accommodation of new students with courses that suit their levels of proficiency and, simultaneously, enable them to pursue their major courses or study programmes particularly in departments of English. Let us turn now to another alternative adopted by some course planners in departments of English.

3. Remedial/Introductory Courses

Being distrustful of the placement test, a third team of course planners in departments of English may prefer to arrange a compulsory intensive language programme meant to overcome the students' weaknesses and prepare them for prospective specialized courses in linguistics and literature. A remedial scheme of this nature would very much rely on the time allotted to the programme and the content of prescribed courses. Sufficient time should be devoted to intensive language courses aimed at promoting the linguistic competence of learners. The question then arises of how much time would be sufficient for this purpose. Practically speaking more than one semester would be too much because this scheme should not be realized at the expense of other specialized courses seen as essential to the needs of the graduates from departments of English. We are then left with one semester and required to help overcome the language weaknesses developed after a minimum of eight years of exposure to English classes. It seems rather unlikely on the part of a large number of these students to easily get rid of their deeply-rooted weaknesses in only one

semester. Besides, in some departments of English such an introductory or remedial scheme does not introduce or orient students towards their specialized courses, which is detrimental to their future progress in the department. Unfortunately, when planning these courses, the staff concerned do not always think differently from EFL traditionalists. They, in most cases, resort to set books about conversation, reading or writing and call these courses accordingly, e.g., introductory conversation, introductory reading and introductory writing. Is it possible that these courses will introduce the three mentioned skills? Or are they meant to develop the students' performance in them? And how significant are these skills for the students' subsequent programmes of study? As stated above, these courses are nothing but a repetition of what the students have already failed to achieve in eight years prior to their admission to the university. In addition, some remedial/introductory scheme planners may worsen the situation 'f they consider different objectives for each course like 'participation in discussion' and 'following lectures' as the objective of a course like 'introductory conversation'. The marriage of these two different activities at the level required and in the same course does not seem practical (James, 1977). To develop the skill of 'following lectures' given in English, sufficient and varied drills in note-taking necessitate an intensive course in listening comprehension. Such training does not have to be dovetailed with a course in conversation, as in a lecture one may listen (probably for a whole session) to a lecture with no obligation to change one's role as a listener; in a discussion, however, one alternates roles with one's partners according to the situation (Johns and Johns, 1977). In a lecture the student may play a rather passive role as a speaker in spite of the fact that he can play the role of a positive listener (Abercrombie, 1978) whereas, in a discussion, he is required to play different and effective roles of conversation. Concurrence of language activities with conversational ones, particularly at initial stages of E.A.P, would seem detrimental to the acquisition of either skill.

Likewise, some course planners may think of an introductory reading course by introducing lengthy texts and recommending that they be read silently or aloud for the purpose of comprehension. Silent reading is, undoubtedly, a favourable technique for developing this skill, but reading aloud, which is unfortunately, still used in remedial courses of this nature, has been disfavoured by many EFL specialists (Price, 1977; Rivers, 1968; Whitaker, 1981; Frydenberg, 1982).

Furthermore, the selected texts for a reading course should be in line with, but with a less degree of difficulty from the materials of prospective specialized courses. A variety of simplified texts meant to orient students into their major should help in this regard provided that the emphasis be on the promotion of the language macro-and micro-reading skills. Many other language courses are usually prescribed as the components of remedial programmes in different departments of English and the common factor among them is that they all aim at overcoming students' weaknesses in the foreign language. Nevertheless, what is immediately needed by students is not necessarily a mastery of the four main language skills, which requires time and energy on the part of language instructors as well as motivation and devotion on the part of concerned students. One is induced to suggest a programme that may meet the immediate needs of students at departments of English with some departure from the conventional language skills. A programme geared to the students' needs from academic macro-and micro-language skills seems to be a reasonable alternative. Practically speaking a dedication of one semester for a programme of this nature may hit the target more efficiently than a remedial programme.

4. Study-Skills Orientation Programme

After this lengthy discussion about placement tests and remedial courses, it goes without saying that a programme tailored to the immediate needs of freshman students in departments of English would be a short cut towards the common target of these

departments, i.e., to prepare students for tuition in specialized courses in literature and linguistics. The needs of these students can be identified by an analysis that follows the Munby Profile or the like (Munby, 1978) considering all circumstances of both students and department. However, to cut a long story short it might be easier to look at the issue from a different angle. The lectures and tutors in departments of English would want their students to be able to follow their courses without too much effort to overcome their language barriers that may hinder the pursuit of a lecture in literature or a seminar class in linguistics. However, these barriers are not mainly caused by a lack of proficiency in the language and it would be beyond the scope of this paper to look at these factors. What seems worthwhile in this respect is to adopt an integrated service approach (Mohan, 1979; Siegel, 1982) for a synthesized programme in literature and linguistics to be organized and run by language teachers in collaboration with subject specialists.

In departments of English, courses in the fields of literature and linguistics are provided in the form of lectures, lecturettes, tutorials, seminars and the like. These modes of teaching normally associated with university tuition require certain skills or sub-skills that seem essential to students in order to acquire information and react accordingly in these sessions.

The recommended programme may classify these skills under four main categories: macro-and/or micro-skills needed for a successful reception of lectures, skills needed for a positive class participation, others for a useful manipulation of reading materials and a fourth group for effective writing. The programme is, therefore, suggested to comprise the following courses:

A) A Course in Note-Taking and Organizing

A lecture or lecturette might not be adequately received and/or grasped unless the students were able to take notes of the necessary information. With the language barriers referred to earlier, note-taking does not seem easy for students following lectures

in general or applied linguistics on the one hand and in English drama or novel on the other. Here the students need sufficient training in how to follow lectures. A course designed to cater for these academic needs seems to be a must for freshman students in departments of English in particular.

A note-taking course may be based on materials extracted and/or adapted from real lectures or lectorettes given on English literature or linguistic sciences. A portion of a real lecture in these fields could be tackled in class as meat for practising the language sub-skills of note-taking. Sufficient and adequate drills could develop this skill for students in departments of English if materials were selected from actual substance of courses in novel, poetry, phonetics, psycholinguistics, etc.

Collecting these materials needs a bit of effort and collaboration between subject specialists (lecturers) and course designers/course teachers. It is suggested that a course of this nature be presented in the following order:

- 1) Teaching students the system of abbreviations and method of jotting down information.
- 2) Listening (twice) to recorded (or, if possible, video-taped) material (adequate in size and level of difficulty) selected from authentic lectures given in specialized courses, e.g., novel, drama.
- 3) Requesting students to take notes of the content of this recorded material while listening.
- 4) Teaching students how to identify and note down important points, which can be achieved by focusing on the area/context (on tape) that contains each point.
- 5) Replaying tape (or video-tape) as a whole giving students the chance to match the content with their own jottings.
- 6) Using undrilled (new) material for exercise.
- 7) Providing students, if possible, with copies of taped materials.

One likes to warn course planners against the use of all-purpose-text books particularly for a note-taking course simply because what may suit a group of students is not necessarily fit for the needs of others. Freshman students in departments of English have special requirements some of which should be met by the suggested course.

B) A Course in Academic Discussion Participation

A course in lecture-pursuing or note-taking is not enough to equip freshman students in departments of English with all means to follow their major courses in literature and linguistics. Another course for developing participation in academic discussion is also essential. Departments of English arrange a number of seminars and tutorial classes for their students every week. Many major courses are followed by these sessions which are mainly provided to help students loosen their tied tongues to comment, criticize, and exchange views on material already exposed to in lectures or in references. This activity has proved to be a serious problem among Arab students particularly those who pursue their higher education in countries whose national language is English (Salamah, 1981). For lack of fluency in English in addition to insufficient training experiences in conversation among other members of their different social institutions, these students are rather inhibited in social interaction situations hardly playing adequate positive roles in discussions with a liability for misunderstanding and misconception between them and other participants who might wrongly assume that Arab students' silence is always a sign of their understanding and agreement.

Inadequate communicative experiences on the part of the majority of Arab students at home and in class with the atmosphere of the dominating father in the Arab-family and the teacher-oriented class at school, it is fairly justified to find the Arab student in this dilemma of passivity in English classes in particular.

A course geared to the immediate needs of students here would concentrate on all possible means that help encourage them

to play positive roles in conversations and achieve more effective interaction in group discussions (Argyle, 1965; Duncan, 1974). One of the main criteria on which a course of this nature has to be based is the development of the student's communicative competence and motivation (Hymes, 1971) to take part in discussion. This cannot be realized in a formal atmosphere with the teacher facing a class, instructing and correcting their performance all the time. The traditional style of teaching should accept the alternative of learner-oriented learning, i.e., group discussions managed and carried out by learners themselves with the teacher as an ordinary member in the group except when there is a dire need for his role as adviser. The teacher may prepare materials for discussions but it is recommended to have spontaneous discussions in these classes. It might be worthwhile on the part of the course teacher to advise the whole class group (or perhaps smaller groups) about the topic (or topics) of discussion prior to the actual session of this class. Despite the view that this might disrupt the spontaneity of discussion, there is a counterargument which maintains that this might be a good incentive for shy or weak students in particular to be much more well-prepared and, consequently, self-confident and outspoken in the actual discussion. Moreover, free discussion conducted by peers rather than the teacher is likely to add a flavour of spontaneity to the atmosphere of interaction. Topics to be discussed are recommended to be selected from materials already taught in major courses or relevant references. These selected topics are suggested to be in line with the materials prescribed for the aforementioned note-taking course or extending this a little bit to cover related topics from students' own environment assuming their group homogeneity in this respect.

The style of conducting this class should be as much of a learner-learner interactive type as possible. Students should be encouraged to get prepared and distribute roles among themselves with an alternating leader each session. Model

conversations could initially be provided (on tape) just to acquaint students with the style and strategies of role-play in discussions (Johns & Johns, 1977). It might also be of value to train students in the phrases that cause misunderstanding or disruption of communication. The class might be divided into smaller groups each of which might tackle a different topic (or part of topic) for discussion.

In case different parts of one topic are assigned to different groups it is suggested that each group leader brief the whole class about his group's work and perhaps the teacher or a brilliant student summarizes the whole body of information reported about the topic. In this course students should be encouraged to make interviews with their lecturers, peers, friends and family members provided they concentrate on relevant topics to those tackled in the discussion participation course suggested here.

C) A Course in Academic Reading

In addition to the recommended note-taking and discussion participation, it seems of vital importance to consider an academic reading course that looks after the academic needs of new students in departments of English. These students, who are expected to attend lectures in major courses and participate in academic discussions, are likewise referred to the library to find more information about the topics tackled in lectures and/or seminars. Unless the student is familiar with the skill of finding appropriate references and extracting the right information from them, it is considered a waste of time spending hours in the library trying to find the extra materials meant to widen his scope on the subject he deals with.

A course of this nature would require taking practical steps towards an effective use of the library. The system of book classification and catalogue checking should be familiar to each student. Library visits under teachers' guidance should be encouraged. Alternatively, actual books and references may be brought in class to show students how to find information sought

about a particular topic. Seeking information with this style should, also, coincide with the content of the above-mentioned prescribed courses.

Students should be taught not only how to find information but how to make notes of this information. It is not always practical to extract whole sections or portions from references just to consider for additional materials on a certain topic. Summarizing and note-making should serve the purpose here. These need sufficient training and practice in order to be at the disposal of students whenever they need to seek information in reference books. One should reiterate here that it would be preferable to select text materials from those included in major courses in literature and linguistics whenever possible and in the meantime avoid the 'world-wide' text books claimed to suit all times and types of learners.

D) A Course in Academic Writing

A fourth course that seems quite fruitful for new students in departments of English is the one which looks after their immediate writing needs in their majors. As soon as these new students join specialized courses in literature and linguistics they are requested to produce written assignments. It is true that they may experience a language barrier at this juncture, but their weak performance in writing can be developed if they become familiar with the style and conventions of writing in addition to how to organize their thoughts and views. An initial step to accurate and effective writing would be systematic thinking. A course that considers these points can be practically successful if based on the outcome of the three prescribed courses so far. The materials used for note-taking, discussion-participation and academic reading yield some thoughts which may formulate a formidable foundation for the writing course.

Students have to be acquainted with the mechanics of writing before requesting them to write. Besides, it is neither practical nor motivating to inform students about the abundant errors in their written assignments. It might be commendable to encourage them to continue writing as long as they maintain a minimum of

communication through their writing. Linguistic accuracy should not be the first goal of effective writing. The flow and sequencing of ideas should have priority provided the message be passed to other parties. Linguistic accuracy can be gradually attained by successful communicative experiences. It may, temporarily, be overlooked for the sake of fluency. However, it is harmless if the course teacher collects common mistakes and either explains them or rather integrates their correct forms in subsequent drills.

Furthermore, students should be encouraged to write on a variety of topics related to their specialisation, i.e., English language and literature. Further, it is highly advisable on the part of the teacher to mark and correct the written assignments and return them to students. The quality rather than the quantity should be one of the main criteria of assessment. A variety of exercises on outlining, summarising, precis-writing, short and long reporting, etc. may be useful in a writing course.

With this envisaged four-course-programme based on the immediate study skills of students newly-admitted to departments of English and oriented towards their major courses in literature and linguistics, gratifying results are hopefully expected particularly if the following precautionary measures are taken into consideration:

1. G.C.E. (or equivalent) scores in English courses should form a basis for admission to the department (of English) major courses. An average of 70% is suggested as a minimum percentage for this purpose.
2. Graded language skills courses should be maximally offered.
3. Language courses should be taught by qualified English language specialists with adequate experience and calibre. Specialised staff in both linguistics and literature should be exempted from handling language courses.

4. Language skills courses as well as the study skills programme should neither be underestimated by the specialized staff nor overestimated by the language instructors.
5. Abundant language activities have to be provided for new and old students in addition to graduates, if possible.
6. Dramatization of English works of art has to be facilitated for students.
7. Social gatherings and interactive experiences have to be maximized between the staff and students.

Conclusion

I have endeavoured in this paper to highlight the different policies adopted by departments of English as concerns freshman students. I argued against the policy that favours total reliance on the General Secondary School Examination scores, which has proved to be unreliable in multifarious situations.

I also looked at the policy that manipulates the placement test to determine the level of proficiency for every student and, accordingly, accommodate him with suitable courses. Owing to the failure of the placement test (in its traditional form and content) as a measuring device to help reach a fair decision on the degree of competence of each testee, I tried to account for my own suspicions as concerns the validity and old-fashioned techniques of these tests.

Thirdly, I examined the nature of the current programmes offering remedial courses to help students to cope with the main study programmes in departments of English. I tried to explain that what is being done is a sheer waste of time that sometimes amounts to a whole semester.

Eventually, I set forth my envisaged programme for freshman students as geared to the actual requirements of these students

represented by certain academic study skills the acquisition of each of which needs a separate course taught by a language specialist. The four courses are suggested to be integrated and oriented towards the major specialized courses provided by departments of English.

The suggested programme cannot guarantee a solution to the dilemma of freshman students in departments of English, but it is envisaged to form a foundation on whose model a more elaborate project could rest with a view to confronting these students' aggravating problem.

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ON THE NOTIONS 'STANDARD' AND 'PRESTIGIOUS'
IN ARABIC SOCIOLINGUISTICS

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In most sociolinguistic literature with which we are familiar in this part of the world, the terms 'standard' and 'prestigious' are explicitly or implicitly equated with each other. Since most such literature concerns English, I think that there is no great danger in using 'standard' and 'prestigious' interchangeably since for the native speakers of English standard speech tends to be prestigious and prestigious speech is usually standard. In recent years, however, some students of Arabic sociolinguistics have replicated some of the English sociolinguistic studies and stated their findings in almost identical terms. In this paper I shall examine the results of two recent sociolinguistic studies of Arabic and their conclusions (Abdel-Jawad 1981 and Kojak 1983; cf. also Abdel-Jawad 1983). More specifically, I shall examine those findings relevant to sex differentiation in Arabic and the two writers' interpretation of these findings. Interestingly enough, the two writers, who conducted their fieldwork in two different Arab communities (Jordan and Syria), obtained similar results to which they independently gave similar interpretations. I have no doubts as to the validity of the results obtained in these two studies, but I disagree with the authors on the manner in which they interpreted their results.

Sociolinguists seem to agree unanimously that sex-based variation exists in all languages. Furthermore, evidence adduced largely from English indicates that, other things being equal, women tend to consistently produce more standard and socially prestigious speech than men (for a comprehensive and thorough review of language variation and sex, see Smith 1979 and the references therein). One implication of this fact is that "women's speech is frequently more conservative and evaluated as better than men's speech" (Peñalosa 1981, 125). It may be worth remembering that such conclusions were arrived at largely on the

basis of phonological data. The same kind of data was also the basis of the two Arabic studies under consideration. Kojak's study investigated the phonetic realization of the three interdentalals [θ], [ð], and [ʒ] in the speech of a number of Syrian male and female speakers of Arabic in Damascus and Hama. Abdel-Jawad, whose subjects came from Amman, added to these sounds the voiceless uvular plosive [q] as well as some lexical forms. As stated earlier, both studies came independently to the same conclusion. Thus, Abdel-Jawad found that his male informants "use the standard linguistic forms more than women" (1981, 324) and that "women use the standard prestigious forms in both careful and casual styles less often than men" (1983, 103; emphasis added). He then adds the highly significant remark that women "produce the Urban linguistic variants much more often than men" (1981, 324), that is, "women may lead in producing some local socially prestigious linguistic features" (1983, 103). From statements such as the above, he concludes that these Arabic sociolinguistic patterns "contradict the patterns reported in Western communities" since women in Amman "do not use the standard prestigious forms as often as men" (1981, 324; emphasis added). It is important for our purposes to notice how the writer equates in the above quotations the terms standard and prestigious. It is also important to take notice of what the writer calls "Urban linguistic variants" since, as I shall argue later in the paper, it is these variants which are both prestigious and standard with regard to spoken Arabic.

Turning to Kojak's study, we find much the same conclusions stating that "male informants use more prestigious forms than females" (p. 4). A little earlier the term 'prestigious' is explained with reference to "standard forms" and "classical Arabic" (p. 3). The same statement is reiterated in identical terms in the conclusion (pp. 39-40).

In what remains of this paper, I plan to do two things, namely,

1. to show why the terms 'prestigious' and 'standard' cannot and should not be used interchangeably, especially

in connection with Arabic sociolinguistic facts; and, in the light of this,

2. to reinterpret Abdel-Jawad's and Kojak's findings.

That 'standard' and 'prestige' are not equatable even for such languages as English is easily attested in a number of studies. For example, Dittmar summarizes Labov's and other research on the question of language variation and sex in the following manner (1976, 237): "The results of virtually all investigations show that women adapt to prevailing prestige forms more than men." Moreover, Labov's work has shown that "prevailing prestige forms" may result from two conflicting forces, namely, a departure from the norm or the standard, in which case women seem to initiate and lead linguistic change, or, alternatively, from stricter adherence to the standard norm, in which case women can be described as being linguistically more conservative than men. Thus, women's speech is more innovative and more conservative at one and the same time. It is understood, however, that language in general and women's speech in particular, are far more conservative and stable than innovative and changing. In other words, more prestige in women's speech often coincides with more linguistic stability and conservatism on their part. And both conservatism and prestige coincide more often than not with standard speech. It is in this sense that we can speak of, say, standard English as being the prestige variety. The same kind of logic, however, cannot be employed with reference to Arabic for a number of reasons. For one thing, standard written Arabic arose as a result of "a process of fairly self-conscious social and linguistic planning" (Peñalosa 1981, 88), whereas standard English resulted from different sociolinguistic and historical processes. This partly explains why more than one English variety are recognized as standard (British, American, etc.), but only one standard variety is recognized for written Arabic. Another source of difference between the two languages

is the seeming confusion in the case of Arabic of the terms 'standard' on the one hand and 'official' and 'national' language on the other. As Peñalosa puts it (op. cit.),

While written and standard language are characterized in terms of linguistic variables, official language and national language are matters of political decision or ethnic reality. The standard and the written language require the active cooperation of the speech community; an official or national language requires only passive acceptance.

The implications of this statement for Arabic are obvious. For the overwhelming majority of Arabs, standard Arabic exists only passively and enjoys no more than passive acceptance by them. Apart from the lip service that we tend to pay to standard written Arabic and its prominent role in our lives as Arabs, we have made no serious or meaningful attempt to make this variety of Arabic become the most prestigious variety in our daily life. If anyone has any doubts about the implications of this statement, let him/her start using standard written Arabic consistently in speaking to others. I think that we can all predict the unpleasant outcome of such an experiment. In the light of such an outcome, does it still make any sense to characterize standard written Arabic as the prestige variety of Arabic?

Moreover, unlike standard English, standard Arabic is never acquired without formal instruction and schooling. It is possible for an individual to acquire standard English simply by belonging to a certain socioeconomic class or through social mobility alone, but that is an impossibility in the case of standard written Arabic, the acquisition of which need not involve or depend on any social factors other than education. Social status or mobility in any Arab society, however, is sufficient for the individual to acquire a regional (i.e., spoken) prestigious variety. Because of these facts, and because written Arabic is

not primarily a spoken language or a natively acquired tongue, no comparisons in terms of prestige should be made between written and spoken Arabic. In short, sociolinguistic prestige is possible without written Arabic and in its absence, and the presence of the written Arabic variety alone does not guarantee that its user will be automatically endowed with such prestige.

But even if we agree to attribute prestige to standard written Arabic, it is important that we realize with Mitchell (forthcoming, 25) that "Prestige does not in fact attach to written Arabic only." Abdel-Jawad's and Kojak's problem lies precisely in their not realizing that prestige may attach to any Arabic variety besides the written one. It also lies in their not realizing that the spoken varieties have their own "pecking order of prestige" (*loc. cit.*, 14-15) and that "speakers from the capital cities ... set standards in their own countries" and continue to have clear ideas as to what is prestigious and what is stigmatized (*loc. cit.*, 26). In fact, there is sufficient evidence to suggest that we can go further on this matter than Mitchell has suggested. Speakers in capital cities do not set standards in their countries only, but outside them as well. Moreover, what is prestigious and stigmatized is no longer confined to such speakers, but is the common knowledge and stock of speakers of Arabic who live outside the capital cities and even outside the countries in which these cities are located. Jordan itself, with such linguistically heterogeneous towns as Amman, Zerqa, and Irbid, is a good illustration of this claim. There can be little doubt that the most highly valued speech varieties in Jordan are those characteristic of urban Palestinian population. There is also some evidence, not yet documented, that the urban speech varieties of Egypt and the Levant are valued highly in countries of the Arabian Peninsula. Still more significant in this connection is Wagialla's documentation (1982, 256-258) of a number of urban Egyptian forms in the speech of educated Sudanese speakers.

Mitchell (*loc. cit.*, 27) also suggests that speakers shun certain forms partly "to avoid ridicule" which may be invited

by a speaker using stigmatized forms. It is interesting to observe that all the phonological features investigated by Abdel-Jawad and Kojak are stigmatized in spoken Arabic in spite of their being part of the phonological system of standard written Arabic. This shows clearly that it is possible to invite ridicule by using features and forms found in written Arabic. Consequently, it is not enough for a linguistic feature to be associated with written Arabic to escape the stamp of stigma. The astonishing fact is that this applies to the speech of most urban centers of the Arab East including Egypt, Jordan, Lebanon, Palestine, and Syria. In all of these countries, the prestigious spoken variety includes none of the sounds [θ], -[ð], [β], or [q]. It is as if a supraregional variety, analogous to written Arabic itself, has come into existence in these countries. This supraregional variety has local mutually intelligible varieties in the urban centers of the individual countries concerned. There can be no better proof as to the existence of this supraregional variety than the fact that the urban varieties of the above named countries are mutually intelligible whereas other varieties may not be so.

All this leads us to conclude that, for Arabic, we must recognise a prestigious spoken variety which is different from the written standard. Once this is realised, the reinterpretation of Abdel-Jawad's and Kojak's data becomes an easy task.

We have seen already that Abdel-Jawad came close to a correct interpretation of his data when he stated that women "produce the Urban linguistic variants much more often than men" (1981, 324). The Urban forms are nothing but the prestigious spoken forms which, in this case, include using [s] and [t] for [θ], [z] and [d] for [ð], [ʒ] and [ʤ] for [β], and [ʔ] for [q]. If that is what women speakers of Arabic do, then they surely conform to the universal sociolinguistic pattern and do not constitute an exception to it.

Kojak presents an almost identical picture: women in both Damascus and Hama used more local prestige forms than men,

which again confirms the pattern found elsewhere. What is interesting, and at the same time dangerous, about Kojak's work is the number of contradictions it contains which arose as a result of her misinterpretation of the data. Two illustrative examples should suffice:

The findings of the present study show that male informants use more prestigious forms than females. Interestingly, the scores of female speakers who have a less dense social network in a society where segregation between men and women reaches a high point turn out to be higher than those who live an open social life. (p. 4)

...; men approached more the prestigious classical variety of Arabic both in Hama where women are highly segregated and excluded from public life and in Damascus in the case of women who lead an open social life. The interpretations for sex-related differences, which seemed ironic, were reinforced by the findings of this project; women in Hama used more prestigious forms than women in Damascus who seem to enjoy a 'better' social position. (p. 39)

If 'more prestigious' was replaced by 'less prestigious' in the above quotations, everything would fall in order and the contradictions and irony felt by Kojak would be removed. It is clear that the classical forms do not enjoy the prestige Kojak would like to attribute to them. If we accept that Kojak's more prestigious classical forms are the same as our less prestigious spoken forms, it becomes obvious (and not interesting or ironic as Kojak says) why women should use fewer interdentals than men. This will also explain why women in Hama use more interdentals than women in Damascus, since Hama is not the urban center that Damascus is and, therefore, its speech variety does not enjoy the same prestige as that enjoyed by the Damascus variety. Our interpretation is supported by Kojak's data which show that men in Hama also use significantly more interdentals than men in Damascus

(cf. figures 3 and 4, pp. 36-37). But Kojak remains silent on this fact because it contradicts what seems to have been a pre-conceived theory on her part, namely, that "in a male-dominated society in which the position of women is unequivocally inferior" women "tend to use less prestigious forms than men because they are relatively excluded from public life and because the society of the two sexes is segregated" (p. 39). Without going into the details of the fallacious thinking underlying this statement of the problem, I would like only to point to the long standing sociolinguistic generalization that speech is merely a reflection of underlying social realities and not a consequence of them. It is wrong, therefore, to conclude that because women in a particular society might enjoy a social position which is inferior to that of men, they would necessarily use an inferior language variety. If this were true, then women in most societies, including the Western ones, would be speaking inferior language varieties and all the reports about women using more prestigious language and the conclusions drawn from such reports would be automatically rendered nonsensical. If for most (all?) societies investigated so far, it has been found that "women, despite their more standard speech, do not enjoy a prestigious position in society compared to men" (Smith 1979, 113), why should one expect or hypothesize the opposite to be the case in an Arabic-speaking community? In fact, this universal sociolinguistic paradox of women using more prestige language than men while they themselves enjoy less social prestige has been repeatedly explained with reference to women's universally inferior social position. It is precisely because women have an inferior social position and are, therefore, less secure socially and psychologically, that they are expected to 'behave themselves' linguistically and otherwise. For the men on the other hand, who, because of their dominant position in society, are much more secure vis-a-vis women, there is much less need for good social behavior of which language is but one type. But all of these facts have been ignored by Kojak who seems to have been blinded by her own presuppositions.

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To sum up, then, I hope that in the course of this paper, I have shown the following to be true:

1. That it is incorrect to posit only one standard speech variety for Arabic, which is standard written Arabic;
2. That a prestigious spoken variety of Arabic exists independently of the prestige of standard written Arabic;
3. That it is this prestigious spoken variety which should be taken into consideration when conducting studies such as those referred to in this paper;
4. That prestigious spoken varieties of Arabic in a number of Arab countries have a number of features in common; and
5. That the sociolinguistic pattern for sex-based variation in Arabic is the same as that reported for other speech communities.

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ARABICIZATION AND THE ROLE OF ENGLISH LANGUAGE
TEACHING IN ARAB UNIVERSITIES WITH SPECIAL
REFERENCE TO THE IRAQI EXPERIMENT

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1. Introduction

1.1 Aim

This paper seeks to investigate the role of English language teaching (ELT) in Arab universities following the headway made by several Arab countries in the field of Arabicization. It is mainly concerned with the countries where English is a foreign language. They include most Asian Arab states in addition to Egypt, Sudan and Libya. The paper first sets out to provide a brief outline of the process of Arabicization in the Arab world. Then it moves to recount the Iraqi experiment, placing special emphasis on the present situation, current pedagogical procedures, the language skills needed and the teaching approach adopted.

1.2 The Hypothesis

Unfortunately, the progress made in Arabicization has been accompanied by a diminishing role for the teaching of English for Arab students of science and technology. A reasonable knowledge of English is essential to help Arab students have access to the world's science literature and also keep pace with today's technological advances. Hence, a sharp need emerges for local research into an area of language teaching and study, namely, English for Special Purposes (ESP), or more specifically, English for Science and Technology (EST).

2. Arabicization

By Arabicization is meant the use of the national language as a medium of instruction and expression for all branches of learning at the university level. A number of Arab countries, particularly Syria, Egypt and Iraq have gone a long way in this enormous process.

However, Arabicization (the rendering of foreign sciences into Arabic) is not at all a new activity. Translation into Arabic flourished during the Abbasid Dynasty and attained its zenith during the rule of al-Ma'mun (813-883). Most of these translations were done from Greek, Persian, Sanskrit and Syriac, often indirectly through the last language. As a result of these activities, Arabic soon acquired the status of a lingua franca for the then sciences and arts.

A detailed and comprehensive study of the methods employed by ancient Arabs to strike a balance between the learning of foreign languages and the predominance of their national tongue in all spheres of knowledge is yet to be attempted and is beyond the scope of this paper. Here, a brief account on the process of Arabicization in a number of Arab countries might be sufficient.

2.1 Syria

Syria is perhaps the pioneer country in Arabicization in the Arab world (al Sayyadi 1980: 128). As early as 1919 the Syrian national authorities had embarked on an ambitious programme of Arabicizing education, army and administration. The University of Damascus comes in the forefront in this respect, with as many as 150 medical titles rendered into Arabic in the same period (Kinani 1965: 35). Now Syria boasts of being in the vanguard of Arab countries not only in terms of the amount of Arabicized university science literature but also in the number of teachers capable of using the national language in the teaching and expression of science and technology.

2.2 Egypt

Early attempts at Arabicization can be traced to Muhammad Ali who is believed to have introduced the first Arabic press in Egypt, the third of its kind in the Arab world. Muhammad Ali is also credited with the first efforts to render medical sciences into Arabic and also with the attempt to teach these sciences in the national language (al-Sayyadi 1980: 130). Under Muhammad Ali and his successor, Ismael, the foundations of what came later to

be known as the Egyptian School of Translation were laid. This School managed to Arabicize a considerable portion of medical terms (al-Maqdisi 1967: 188).

However, this encouraging start declined following the British occupation of Egypt. It was not until the early sixties, when the newly born Egyptian University and several other academic institutions undertook the translation of most of their science curricula, that Arabicization gathered once again momentum (al-Sayyadi 1980: 132).

2.3 Iraq

Iraq, like Egypt and Syria, has achieved a big leap in the Arabicization of the university curricula. Apart from medicine, most subjects in the colleges of sciences, agriculture and engineering are now taught in Arabic. The process of Arabicization was made legal with the promulgation of a law in 1979, stipulating the formation of a high-ranking committee to supervise the translation of science literature into Arabic. The humanities, geography, archaeology, etc., have been taught in Arabic since a very long time (Hassan al-Dujeili 1965: 61).

2.4 Sudan

Sudan is among the Arab countries which faced serious problems not only in the Arabicization of the university curricula but also in the teaching of science school subjects in Arabic. However, with the help of Egyptian textbooks Sudan managed to Arabicize teaching at the secondary school level in late 1969. Arabicization of education at the university level in Sudan will definitely take sometime as a fair number of professors are still non-Arabs (Lisan Arabi, 1973: 32).

2.5 Lebanon

Lebanon, a mixture of cultures, religions and foreign influences has had, perhaps, better opportunities for Arabicization than any other Arab country. With an Arabic press, that went into operation in 1610 and the presence of several Christian missions belonging to different denominations, Lebanon could indeed have

done a great deal in this respect. However, no noticeable action on the official level has been taken to Arabicize the sciences. Unlike the University of Damascus, which is fully Arabicized, the Lebanese universities - apart from the state-run University of Lebanon which offers several courses in Arabic - have not taken the subject seriously and have continued using the foreign language (French and English) as a medium of instruction and expression in most branches of learning (Badr 1969; 230).

2.6 Jordan, Kuwait and Saudi Arabia

Although Jordan, Kuwait and Saudi Arabia did not suffer from a colonial cultural legacy represented in the dominance of the foreign language in all school levels, as has been the case in the countries of the Arab Maghreb, the three countries have not, so far, achieved noticeable progress in the Arabicization of university science curricula. Apart from the humanities, the medium of instruction remains English in a great number of subjects taught at the colleges of medicine, sciences, engineering and agriculture (Arabicization Conference 1973).

2.7 The Arab Maghreb

The Arab Maghreb, comprising Libya, Tunisia, Algeria and Morocco, has suffered most from the predominance of foreign culture and education, whose legacy is still widely felt in the four countries. Apart from Libya, the other three countries have not yet managed to Arabicize all of their secondary school scientific textbooks. French is taken in these countries as the second language, with English being taught as a foreign language only in Libya. The countries having French as a second language have not yet embarked on the Arabicization of the university curricula (al-Sayyadi 1980: 138-181). Libya has Arabicized the humanities but has not yet taken a similar step to Arabicize colleges offering courses on science, medicine, engineering and agriculture (Lisan Arabi 1977, Vol. VII: 55).

3. Arabicization - a national goal

Arabicization is undoubtedly a national goal, strictly pursued by all Arab countries. To achieve this goal a bureau for the coordination of Arabicization in the Arab world was established in 1961. The bureau, backed and financed by all Arab countries through the Arab League Educational, Scientific and Cultural Organization (ALESCO) has so far held four conferences, the last of which was in 1980. In these conferences, the significance of Arabicizing all forms of education in the Arab world was brought up and recommendations were drawn to reach the state of comprehensive Arabicization by the year 2000, by which, Arabic will hopefully be declared as the lingua franca of science and technology in the Arab world (Proceedings of Arabicization conferences 1961, 1973, 1977, 1980)

However, the high priority given by the bureau for Arabicization has always been accompanied by an emphasis on the role of the foreign language in science and technology. Several articles appearing in the bureau's journal 'al-Lisan al-Arabi' (The Arab Tongue) have proposed a two-pronged policy, whereby most of the science subjects will be taught and studied in Arabic apart from certain ones which should remain in the foreign tongue. Al-Daqaq writes: "with the prevalence of Arabicization a greater degree of emphasis must be placed on the role of the foreign language (Al-Daqaq 1967 : 134).

But, unfortunately, the wide scope assumed by Arabicization has been accompanied with a diminishing role for the teaching of English as a foreign language. Arabicization, as has been stressed by the Conference on the Arabicization of Higher Education in the Arab Homeland, held on 4th April 1978 "must be viewed as a factor adding further significance to the role of English language teaching and not otherwise."

4. English as a lingua franca in science and technology

The English language, according to Quirk et al (1972; 3) is "the world's most important language" and "the most used" one.

This is reflected in the fact that English is the most used of all languages in the diverse fields of learning.

A recent report published by the United Nations Educational, Scientific and Cultural Organisation (UNESCO, 1975, 13) asserts that 90% of the world's original literature on scientific and technical subjects is published in English. Another UNESCO report emphasizes that at present more than two thirds of engineering literature in the world is in English.

Arabic translators, though encouraged and handsomely paid by Arab governments and agencies, have managed to translate but a tiny fraction of the material available to university students in the English language. This makes it impossible for Arab students to obtain further knowledge other than what is available in their Arabicized textbooks.

Therefore, it is of great significance that Arab science students should possess a reasonable knowledge of the language as used in their field of study. This significance assumes further dimensions at the graduate level as success in graduate work depends to a large degree on the students' ability to read the appropriate literature in English.

Accordingly, with Arabicization emerges a sharp need for local research into an area of language teaching and study, namely, English for Special Purposes (ESP), or more specifically, English for Science and Technology (EST). A section on the pedagogical procedures adopted in the teaching of English for science and technology students, with an account on what is going on in Iraq might prove helpful to bring closer the subject of Arabicization and the importance of English language teaching at the university level in the Arab world.

5. Introducing ESP

In the past two decades, the teaching of English as a foreign language (TEFL) assumed a new trend, by emphasizing the need to specify the aims of learning the foreign language to meet the auxiliary role which it is called upon to play at the university

level in countries where English is a foreign language. In other words, the auxiliary role of TEFL, at this level, differs a great deal from that set for primary, secondary and tertiary levels of education. The learning of English at these levels is part of the general education and is regarded as a good thing to learn.

At the university level, however, the student's needs are further delimited. They need English for certain or special purposes, perhaps to receive or (to a lesser degree) convey information associated with their specialist studies.

This is more true in the Arab countries where most specialist knowledge is not available in the national language, hence the importance of teaching English for clearly utilitarian purposes or special purpose (ESP). The term ESP, which has appeared in the TEFL literature over the last fifteen years, covers three different, but overlapping branches of learning and teaching. They are: (1) English for Academic Purposes (EAP), (2) English for Vocational Purposes (EVP) and (3) English for Occupational Purposes.

It is EAP which is the main concern of this study, since it covers those communicative skills in English which are required for study purposes in a formal education system. ESP literature further divides EAP into two broad, but overlapping sections: English for Social Sciences (ESS) and English for Science and Technology (EST). The latter is of direct and effective bearing on Arab students of science and technology. Therefore, it merits some further explanation.

5.1 English for Science and Technology (EST)

EST, a major subdivision of EAP refers to the teaching of English to the students of all sciences, including agriculture, medicine, engineering and technology. However, a further consideration of the term EST may prove worthwhile.

What is the implication of the term EST? Is it the kind of English found in scientific textbooks and journals? Is it what English people use when talking to each other about certain

scientific questions? Or is it the English used by a lecturer, lecturing for example on atomic theory? Some ESP specialists (Kerr 1977: 11) believe that EST is all of these, but each one of them is different and the student must be familiar with all of them.

But does an Arab science and technology student need the language for all these purposes? Of course not. The needs of science students differ according to the situation they are in and Arabicization has brought an altogether different situation for EST. Definitely, specific needs and targets would emerge at the university level, and the principal objective of an EST course is to cater for such targets and needs.

6. The Iraqi Experiment

6.1 Historical Background

English was first introduced as a subject of study in Iraq as early as 1873 (Al-Chalabi, 1976). However, it was not until 1970 when an eight-man committee set out to thoroughly examine the situation of TEFL in Iraq. During the years 1873-1970, a great deal of dissatisfaction was felt with the results of English language teaching in the country and a reconsideration of the methods and textbooks became an urgent matter (al-Hamash, 1978). In cooperation with the Ministry of Education, this standing committee prepared and published the first textbook of the 'New English Course for Iraq' in 1973 for the fifth year primary school pupils. The rest of the series appeared in succession with a new textbook each year until June 1981 when it was practically completed.

But no such organised efforts were made to prepare TEFL textbooks for the university students. Before the introduction of Arabicization, little need was felt for a well-designed ESP course for science and technology students. However, following Arabicization in 1977 a pressing need rose for the preparation of such a course as this time the students had to read most, if not all, of their subjects in Arabic.

6.2 Arabicization and the role of English in Iraq

Arabicization was made legal in Iraq with the promulgation of a law in 1977. Colleges of agriculture, science and most departments of engineering currently use Arabic as the medium of instruction and expression. Only medicine is still taught in English and this definitely will not last long.

Nonetheless, Iraqi officials have never viewed Arabicization as a factor leading to a declining role for English. On the contrary, several articles in the Arabicization law stress the significance of the foreign language. Article Ten makes it incumbent on college authorities to keep on teaching at least one basic subject for every academic year in English, "to help students have a mastery of the foreign language as used in their field of study." Furthermore, the Law calls for the development of a well-organised programme for the teaching of the foreign language at the university level to "help students have access to the world's science literature and keep abreast with current technological advances."

It is worthwhile to point out that similar significance has been attached to the role of English after Arabicization by the bureau for the coordination of Arabicization in Arab countries.

This is a clear indication that both Arab and Iraqi authorities are fully aware of the greater role the English language must assume after Arabicization. Such an attitude towards English is created not only by the technical problems and difficulties of translating the immeasurable amount of existing foreign science and technology literature but also by the need for keeping abreast with research in these two important fields.

6.3 Current Situation

Three factors have determined the current state of English language programme at Iraqi universities: (1) The predominance of Arabicization and its subsequent effect on students' proficiency in English, (2) the standardised policy of curricula construction which has resulted in the unification of English

language programmes for each separate college and (3) the inauguration, in the late seventies, of higher studies at Mosul and Basra universities to prepare teachers specialised in both teaching and preparing EST programmes.

6.3.1 Specifying Students Needs

The language courses available before 1977 were not meant to cater for the utilitarian purpose which the students of Arabicized colleges needed the language for. Therefore, the first step taken by the English departments at both Basra and Mosul universities was to specify the needs arising from the new teaching situation. Different sets of questionnaires were prepared for different colleges. Staff, students and administrators of each college took part in answering the questionnaires with great enthusiasm.¹ In the light of the responses to these questionnaires the organisers of English language courses set out to prepare the syllabuses with the material that would satisfy the prescribed needs. Methodological procedures were decided upon accordingly.

The questionnaires, conducted by ESP graduates and distributed to the staff, students and administrators of various Arabicized colleges, have been unanimous in their results that English is mainly needed for the specific purpose of understanding the available science and technology literature.

6.3.2 The Textbooks

After analysing and identifying the students needs it became necessary to set up the guidelines that would determine the design of textbooks. The new situation necessitated that language teaching material at the university level should not only aim at enabling the students to recognise lexis and structures or learn the four language skills as individual or separate activities. It should rather develop the students language competence in order to enable them to understand authentic science and technology literature.

As a result, great emphasis has been placed on the textbooks designed to build up a communicative adequacy in the students

through the utilization of functions in scientific procedures and concepts. The 'Focus Series' (1973) and 'Nucleus Series' (1976) were temporarily chosen for the teaching of English at the Arabicized colleges.

6.3.3 EST Graduate Studies

Two EST graduate courses were started, one in Mosul and the other in Basra in the academic year 1977-1978. The principal aim behind these courses was the preparation of qualified teachers who would shoulder the responsibility of English language teaching following Arabicization.

The research work, carried out by the scores of EST graduates, whether in Mosul or Basra has been of paramount importance in shaping the approach to the design and teaching of English at Iraqi universities.

The bulk of this research - the whole of it is unpublished yet, but kept in the files of the language academy for reference by the interested researchers - can be divided into two parts, each tackling one aspect of EST. The first looks into the syntax or lexis of scientific and technological discourse and the second studies closely the current EST methodologies with the aim of designing for each group of learners (engineering, medicine, agriculture, etc.) the type of course suitable to the local situation.

7. Approach and Presentation of Classroom Activity

The approach recommended for both the design and presentation of teaching material discards textbooks and methodological procedures which rely heavily on the teaching of lexis and grammatical structures in isolation of genuine authentic pieces of science and technology. A shift to the notional (conceptual) approach as expounded by Widdowson (1974, 1975, 1978) has unanimously been adopted by EST teachers, whose unpublished theses and actual teaching experience have proved the validity of teaching/learning and understanding of scientific notions, activities and the way they are realised in English through different structural forms.

However, Widdowson's ideas as represented in the 'Focus Series' and 'Nucleus Series' have not been borrowed as they are. Exercises and even the reading passages have been modified and sometimes changed to suit the situation of each particular group of learners. Thus, notions, which are directly related to the scientific concepts already known to the students have been given the highest priority in the classroom.

For example, the following simple equation is expressed non-verbally alike in both Arabic and English and perhaps in most other languages. For an EST teacher it could be a good start to build up students' language competence on how equations are realised in English:

$$Q = A \times V$$

The underlying, non-verbal information in this equation can be realised in terms of its surface structure in both Arabic and English as follows:

$$Q = A \times V \quad \text{الكمية تساوي المساحة مضروبة في السرعة}$$

Quantity equals area multiplied by velocity

(Hassan, 1979; 87)

At this stage, the students would get familiar with one basic scientific notion, namely equations. The presentation of further equations in this way in the classroom would undoubtedly lead to the students' realisation that symbols like (Q, A, V, G, P, etc.) represent nouns (or rather noun phrases) and signs like (x, =, etc.) represent verbs (or rather verb phrases).

Exercises such as these might be regarded as a first step towards the development of other exercises which would increase the communicative competence of the students. Furthermore, these exercises would also be of direct relevance to the students as far as the genuine scientific material is concerned.

8. Conclusion

Arabicization has become a national goal which is strongly pursued by all Arab countries. In the year 2000 ALESCO hopes

to declare Arabic as the lingua franca of science and technology in the Arab world.

With the accelerating process of Arabicization a sharp need emerges for the teaching of English at Arab universities. The main reason for this is the fact that the bulk of scientific material is written in a language of which Arab science students know very little.

Therefore, it is necessary to develop, expand and improve the teaching of English at the university level in the Arab world. Iraq has gone a long way in this respect. Its experiment, briefly outlined in this paper, could serve as an example for other Arab countries engaged in the Arabicization process.

But the lack of coordination among Arab universities in the realm of EST makes the situation unclear as to where other Arab countries, passing through the same situation as Iraq's, are now standing.

A regional EST conference devoted to the local situation in each Arab country might do a great deal to make up for this regrettable lack of coordination.

Notes

1. The questionnaires have been designed by the graduates of ESP and they are kept in the scores of unpublished theses at both Mosul and Basra universities.

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Subject-Object Relations and Word Order

in Standard Arabic

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The central goal of this paper is to characterize the basic properties of subject and object through their grammatical manifestation in a relational network. It will also investigate the relational properties of subject and object with respect to other grammatical notions like: relativization, reflexivization, and passivization.

As far as relational grammar is concerned, this topic is treated as the gist of any relationally oriented theory since it tackles the essential findings of relational grammar such as: raising, ascension, advancement, deletion, chaining constraints, relational hierarchy, chomage and tough movement, etc. It is also the subject of most argumentation, investigation, and debate by relationally-oriented writers such as: Keenan, Comrie, Postal, Perlmutter, and others.

My data is based on Arabic syntax, and it was triggered by the conclusions I arrived at through reading several articles on relational grammar by the above mentioned relationally-oriented writers. In the light of these facts, I selected data which best exemplifies the subject-object properties in a relational network.

Arabic is a VSO language; however, it has a construction created by a rule called "NP fronting." The NP fronting rule advances NP's to sentence initial position. According to this, I will account for those properties of subject which accrue to topicalized NP's.

Related to this, I will refute the claim that VSO languages may have an underlying SVO word order. Consequently, I will have to demonstrate that in spite of the fact that Arabic allows for topicalization, yet fronted NP's do not establish that Arabic has an underlying SVO word order. The point is that a fronted NP construction which creates an SVO order is merely a derived word order from the basic VSO.

Definitions and Arguments

Keenan (1976) defines the subject of a sentence as either pre-verbal or post-verbal nominative NP. Whether the subject slot is pre-verbal or post-verbal is determined by the basic word order of the language as SVO, VSO, or SOV.

Topics are basically defined as pre-verbal nominative NP's. According to Li and Thompson (1976: 459-60), the majority of world languages have the topic-comment construction such as:

As for education, John prefers Bertrand Russell's ideas.

Topic

Comment

And although not all languages have the subject-predicate construction such as:

John hit Mary

Subj. Predicate

there appear to be ways of identifying subjects in most topic-prominent (TP) languages. Li and Thompson's typological claim is simply that some languages can be more significantly described by taking the concept of topic to be basic, while others can be more insightfully described by taking the notion of subject as basic. This is due to the fact that many structural phenomena of a language can be explained on the basis of whether the basic structure of its sentence is analyzed as subject-predicate or topic-comment. Among world languages classified as subject-prominent ones are: Indo-European, Niger-Congo, Finno-Ugric, Semitic (including Arabic), Dyirbal (Australian), Indonesian, Malagasy.

Subject vs. Topic

1. According to Li and Thompson (1976: 460-66), one of the primary characteristics of topics is that they must be definite. A subject, on the other hand, need not be definite; e.g.
A couple of people have arrived.
2. Selectional relations: An important property of the topic is that it need not have a selectional relation with any verb in a sentence. That is, it need not be an argument of a predicative

constituent. The subject, on the other hand, always has a selectional relation with some predicate in the sentence.

3. Verb determines "subject" but not "topic": It is possible to predict what the subject of any given verb will be. The topic, on the other hand, is not determined by the verb.
4. Verb agreement: The verb in many languages shows obligatory agreement with the subject of a sentence. Topic-predicate agreement is very rare.
5. A topic is confined to sentence-initial position. A subject; on the other hand, is not confined to sentence initial position. As the topic represents the discourse theme, it makes sense that the topic should be introduced first.
6. Grammatical processes: The subject but not the topic plays a prominent role in such processes as reflexivization, passivization, equi-NP deletion, verb serialization, and imperativization. The reason for that is particularly due to the fact that the topic is syntactically independent of the rest of the sentence.
7. Subject is normally determined by the verb, and is selectionally related to the verb; the subject often obligatorily controls verb agreement.

In conclusion, the topic is a discourse notion which is syntactically independent of the rest of the sentence, whereas the subject is to a greater extent a sentence internal notion. The former can be understood best in terms of the discourse and extra-sentential considerations, the latter in terms of its functions within the sentence structure (from Li and Thompson 1976: 460-66).

Properties of Subject and Object:

This portion of the study provides the necessary Arabic data to support the claim that the characterizing syntactic features of a subject are markedly different from those of an object. If that is the case, then the linear ordering which is the most important parameter to distinguish between subjects and objects

in some world languages, (e.g. English), is not a critical factor in the case of Arabic.

I Subject (Su)

1. It has an immediate post-verbal position in preferred basic word order, which is VSO, e.g.

V	Su	O
kasara	al-waladu	al-qalama
broke	the boy	the pen

But it may also take sentence initial position in derived word order, e.g.

Su	V	O
al-waladu	kasara	al-qalama
the boy	broke	the pen

(or)

Su	predicate
al-waladu	ḍakiyyun
the boy	clever

The boy is clever. (There is a copula deletion).

(or)

waladun	ḍakiyyun
a boy	clever

-un = is the nominative case marker for indefinite nouns.

e.g. waladun = boy

-u = is the nominative case marker for definite nouns.

e.g. al-waladu = the boy

2. Only coreferential subjects may be deleted under equi. e.g.

(ana)	akrahu	l-kaḍiba
<u>I</u>	<u>I</u> hate	lying
	I hate lying	

3. A pronominal copy of the topic NP may exist for emphatic use. This kind of construction is only possible with topicalized

subjects, e.g.

al-waladu	huwa	sababu	l-muškila
the boy	(he)	cause	the problem

The boy is the cause of trouble.

Although this construction exemplifies a topicalized NP, yet the whole construction is derived from the basic VSO word order, e.g.

V	S	O
sabbaba	al-waladu	al-muškila
caused	the boy	the problem

4. It may control reflexivization, e.g.

jaraha	al-waladu	nafsahu
hurt	the boy	himself

The boy hurt himself.

5. Addressee of imperatives: imperatives are formed by using the verb stem; the assumed subject is always in the second person, e.g.

kul	attuffaahata	
eat	the apple	(The assumed subject is "you")

6. According to Ross (1974), Su has primacy constraint; it has primacy over the object. This is true about Arabic since the subject and not the object conditions verb agreement. Verbs in Arabic are inflected according to any change which occurs in the subject, like changing the person, number, or gender, e.g.

Gender:	(a)	<u>akala</u>	<u>al-waladu</u>	almawzata
		ate	the boy	the banana
	(b)	<u>akalat</u>	<u>al-bintu</u>	al-mawzata
		ate	the girl	the banana

1st				
Person:	ana	<u>akaltu</u>		(singular)
	I	ate		
	nahnu	<u>akalna</u>		(plural)
	we	ate		

There is no dual in the first person; dual only occurs in the second and third persons.

2nd person: (masculine)	anta	akal <u>ta</u>	(singular)
	you	ate	
	antuma	akalt <u>uma</u>	(dual)
	you (two)	ate	
	antum	akalt <u>um</u>	(plural)
	you	ate	
2nd person: (feminine)	anti	akal <u>ti</u>	(singular)
	you	ate	
	antuma	akalt <u>uma</u>	(dual)
	you (two)	ate	
	antunna	akaltun <u>na</u>	(plural)
	you	ate	
3rd person: (masculine)	huwa	akal <u>a</u>	(singular)
	he	ate	
	humaa	akal <u>aa</u>	(dual)
	they (two)	ate	
	hum	akalu <u>u</u>	(plural)
	they	ate	
3rd person: (feminine)	hiya	akal <u>at</u>	(singular)
	she	ate	
	humaa	akalata <u>a</u>	(dual)
	they (two)	ate	
	hunna	akalna <u>a</u>	(plural)
	they	ate	

7. Su can be raised to DO (direct object), e.g.

yuriidu muhammadun an yugadira
 want Muhammad to leave
 Muhammad wants to leave

(c) akalat al-banaatu kulluhunna attuffahaati
 ate the girls all them the apples
 becomes

(d) attuffahaatu akalatha al-banaatu kulluhunna
 the apples ate them the girls all them
 The girls ate all the apples

In sentence (d), kulluhunna="all of them" refers to the subject al-banaatu="the girls" or to the topic attuffahaatu="the apples," but in a construction like this the topic usually has the priority of controlling coreference.

2. Coreference with subordinate clauses: Coreference with clause boundaries is usually associated with the subject whether in a fronted or a nonfronted construction. Under no circumstances may this property be taken over by fronted NP's other than the subject, e.g.

(a) qaraba muhammadun ^Caliyyan summa haraba
 hit Muhammad Ali then (he) escaped
 Muhammad hit Ali then he escaped
 becomes

(b) muhammadun qaraba ^Caliyyan summa haraba
 Muhammad hit Ali then (he) escaped

With NP fronting in sentence (b), it is clear that coreference is controlled by the subject "Muhammad." On the other hand, a topic NP cannot control coreference (cf. Aljarin 1975 who suggested that the semantic interpretation confirms that "Muhammad" hit and he himself escaped.)

(c) ^Caliyyun qarabahu muhammadun summa haraba
 Ali him him Muhammad then (he) escaped

"He" is coreferential with the subject "Muhammad" and not with the fronted NP "Ali." Therefore, coreference across clause boundaries is controlled only by fronted subjects. In my opinion, there is a possibility that coreference could be controlled by both subject and topic in the given example.

3. NP subject fronting conditions verb agreement. A fronted NP may result in a change of the verbal form; such property is attributed to the subject, e.g.

becomes

Caliiyyun yuriidu muhammaadan an yugadira
 Ali want Muhammad to leave
 Ali wants Muhammad to leave

What properties of subject accrue to topicalized NP's?

One of the major concerns of topicalization is to investigate the properties of subject which accrue to fronted NP's. Arabic is a VSO language in which case markings play a significant role in determining the grammatical relations of NP's. This enables us to capture the relations that NP's bear in the event of topicalization. What happens to NP's whose grammatical relations have been taken over by another NP (e.g. passive)? Is the subject demoted to chomeur status in an NP-fronted construction? Does a topicalized NP condition verb agreement?, etc.

When NP fronting occurs in standard Arabic it usually affects sentence structure in terms of grammatical relations holding between the constituents. A fronted subject would maintain its subject properties, while a fronted object takes over some of the subject properties (like the nominative case marker), but it also acts like a topic and not like a subject. Consequently, fronted NP's do take over some of the subject properties. My conclusions are based on Noonan and Woock (1979).

1. It has the ability of controlling coreference across clause boundaries, e.g.

(a) Šariba al-awlaadu kulluhum ħaliiban
 drank the boys all them milk

becomes

	Su		V		O	
(b)	al-awlaadu	Šaribuu	ħaliiban	kulluhum	wanaamuu	
	the boys	drank	milk	all them	and slept	

All the boys drank milk and slept

In sentence (b) coreference is controlled by the fronted subject al-awlaadu="the boys," which is the subject of the sentence and there is no possibility that coreference is controlled by ħaliiban="milk" (acc.), because kulluhum="all of them" does not refer to the object but only to the subject.

Coreference may be controlled by topics, too, e.g.

- (a) naama al-awlaadu
slept the boys
becomes
al-awlaadu naamuu
the boys slept

In sentence (b), the verb naamuu="slept" is inflected for number. This change in the verbal form occurred so that the verb agrees with the fronted NP, but this inflection for number takes place only with plural NP fronting; otherwise the verb usually carries the same inflectional marker for singular and plural subjects, e.g.

- (c) naama al-waladu (singular)
slept the boy

The boy slept

or

- (d) naama al-awlaadu (plural)
slept the boys

The boys slept

In case of singular NP subject fronting, the verbal form would remain the same, e.g.

al-waladu naama
the boy slept

Therefore, the verbal form changes to agree with fronted plural NP's and not with fronted singular NP's provided that the fronted plural NP is a subject. A non-subject topic, however, does not condition verb agreement, e.g.

burtuqaalatan akaltu
an orange I ate

Here, the verb remains the same even when we pluralize the topic.

II Direct Object (DO)

Some verbs in Arabic take two objects. In this case, they can be referred to as the first object and the second object. These are equivalent to the English DO and IO. The properties of DO are the following:

1. It could be promoted to subject in passive sentences, e.g.

	V	Su	DO
(a)	akala	al-waladu	al-mawzata
	ate	the boy	the banana

becomes

- V(passive) Su
 (b) ʔukilat al-mawmātu (bi-waaʕiʕat)
 was eaten the banana (by)
 The banana was eaten (by)

The agent is usually deleted but is recoverable from the context. In many instances the agent is unspecified as there is no reference to it at all.

2. DO satisfies the principle of nuclear chaining constraint based on the relational hierarchy law. According to Johnson (1974), when a language "L" can advance NP's holding grammatical relation "A" = (IO) to "C" = (Su), then for any permissible candidate relation "B" = (DO) such that B < A, "L" can also advance NP's holding "B" = (DO) to "C" = (Su). This is true of (DO) in Arabic since (IO) can be raised to subject after its advancement to (DO) first; then it can be advanced to subject. The advancement of (DO) to subject is best shown in the passive transformation given in (II.1.b) above. Examples of raising (IO) to (DO) and then to (Su) will be given later when we discuss the (IO) properties.
3. It undergoes tough movement: DO ————> Su, e.g.
 - (a) mina aasahli an turʕiya muḥammadan
 it is easy to please Muhammad (acc.)
 - (b) muḥammadun sahlun ʔirdaaʔuhu
 Mub'd (nom.) easy to please him
 Muhammad is easy to please

III Indirect Object (IO)

1. A basic IO is realized as a preposition + NP, e.g.

V	Su	DO	IO
ʔaʕa	arraʒulu	al-qalama	li-ʔibnihi
gave	the man	the pen	to his son

The man gave the pen to his son
2. Can be relativized on with its replacement by a resumptive pronoun, e.g.
 - (a) ʔaʕa al-qalama li-ʔibnihi alladi qaabaltuhu ʔams
 (he)gave the pen to his son whom met I him yesterday

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Here, the resumptive pronoun exists whether the subject in the relative clause is nominal or pronominal. An example of nominal subject is:

- (b) ʔa^Cʔa al-qalama li-ʔibnihi allaḍi qaabalahu arrajulu ʔams
(he)gave the pen to his son whom met him the man yesterday

3. IO may be raised to DO and then to Su (in passive sentences), e.g.

- (a) ʔa^Cʔa al-qalama li-ʔibnihi -----> (oblique object)
(he)gave the pen to his son

- (b) ʔa^Cʔa ʔibnahu DO DO chomeur
(he)gave his son al-qalama
the pen

- V(passive)
(c) ʔu^Cʔiya ʔibnuhu al-qalama(passive)
was given his son the pen

His son was given the pen

In sentence (a) the verb is ʔa^Cʔa="gave"; the direct object is al-qalama="the pen," and the IO is li-ʔibnihi="to his son." In sentence (b) the verb is the same ʔa^Cʔa="gave," but the DO is ʔibnahu="his son," and al-qalama="the pen" is a DO chomeur.

As far as the intermediate stage - illustrated in sentence (b) - is concerned, it is worth mentioning that generally an oblique object cannot be raised directly to Su in a passive transformation. As a rule, an oblique IO is never eligible to take subject position as a result of the passive transformation unless it is raised to DO first. In order to demonstrate that the intermediate stage is necessary to form passive, let us consider the same example as evidence.

- ʔa^Cʔa al-qalama li-ʔibnihi
(he)gave the pen to his son

Unless we know the language well, it is likely to change this sentence into passive in the following manner:

- ʔu^Cʔiya li-ʔibnihi al-qalama
was given to his son the pen

In this case, the assumed subject li-ʔibnihi 'to his son' does not have subject properties, as it does not carry the nominative case marker -u which is one of the basic properties of a subject. Therefore, the only way to guarantee that such confusion would not occur is to get rid of the oblique first by applying dative

movement, then applying an ordinary passive transformation. However, it is permissible to form passive directly from sentences with oblique objects without necessarily passing through the intermediate stage provided that we have a complete mastery of the language where we do not confuse the oblique object (introduced in a prepositional phrase) with its new subject form in the passive transformation; in other words, we realize that the new passive sentence has undergone a transitional stage which is not stated in writing but implied within the transformation.

Independent Sentences

Before proceeding, it will be useful to outline basic sentence types in Arabic (Nasr 1967). Independent sentences are of two types: nominal and verbal. Nominal sentences are those beginning with nouns, while verbal sentences are ones beginning with verbs.

Nominal Sentences

Those sentences consist of:

Nominal subject + Nominal predicate, e.g.

al-waladu	tilmiidun
the boy	student
The boy is a student	

In such sentences subjects are known to take sentence initial position.

Verbal sentences:

Verbal sentences are of two types:

1. Verb + subject of verb (performer), e.g.

saafara	arrajulu
traveled	the man
The man traveled	

2. Verb + subject (performed upon): passive, e.g.

V(passive)	Su	
qutila	arrajulu	(bi-waaṣitati + agent)
was killed	the man	(by)
The man was killed by		

The agent is usually deleted but is recoverable.

As far as the theoretical issues pertaining to my argument are concerned, the entire portion from now on will be based on

Anderson and Chung's model described in their article, "On Grammatical Relations and Clause Structure in Verb-initial Languages."

McCawley (1970) argued that English clauses have an underlying VSO word order, unlike the surface SVO. This position was criticised by Berman (1974) who tried to demonstrate that McCawley's argument is false as English does not have an underlying VSO at all, but it has a verb medial order. Berman took advantage of the whole issue to introduce another argument which seemed to refute McCawley's claim about the underlying word order of English.

Berman's major concern was to demonstrate how VSO languages maintain a basic VSO word order despite the SVO order manifested in certain constructions due to NP fronting. Berman (1974) argued that in verb initial structures both subject and object are dominated by the node "S." Consequently, it is claimed that other than their relative order to the verb, the two NP's have no structural differences. Therefore, if any of them is removed, there seems to be no way to identify whether the remaining NP in the reduced clause is a subject or object. Berman's argument indicates that certain rules apply to a clause that consists of a verb and a single NP differentially according to whether the given NP represents an original subject or object of a reduced clause, then the previous argument falls short. In other words, subjects and objects are structurally distinct even if the subject has been removed from a transitive sentence. The argument then focuses on whether topicalization in VSO languages can lead to the assumption that the underlying structure of VSO languages is SVO. The answer is that in spite of the fact that the process of topicalization in some VSO languages leads to some surface structure which is not VSO, yet the original structure of these languages is VSO. Let us consider this example from Arabic:

Su	V	O
al-bintu	ʔištarat	Gawban
the girl	bought	dress

which is originally:

V	Su	O
?i#tarat	al-bintu	ḡawban
bought	the girl	dress
The girl bought a dress		

As genuine VSO languages, Breton (a Celtic language), Samoan (from the Polynesian family), and Arabic would present examples to indicate that their basic typology is VSO. One relevant point is that the linear ordering of the subject and object relative to one another is not the only parameter that distinguishes subject from object in VSO languages. Both Arabic and Samoan demonstrate that rules would not be stated to affect the NP following the verb, but rather the NP which has the structural properties of either a subject or an object. That is, it is not only their relative order to the verb that matters.

To take Arabic as a case in point, it has been stated earlier that only coreferential subjects may be deleted under equi, e.g.

ana	akrahu	l-kadiba
(I)	I hate	lying

while a passive construction cannot be equi-deleted, e.g.

yuriidu	^G aliyyun	an yufḡaṣa	(bi-waaṣiṭati ...)
want	Ali	to be examined	(by)
Ali wants to be examined by <u>the doctor</u>			

In other words, if one rule removes the subject, there is no reason to expect that another NP (the object) would carry the subject properties. As a matter of fact objects cannot be deleted by equi, e.g.

akrahu	muḡammadun	an yaḡribani
I hate	Muhammad	to hit me

The object -ni = "me" cannot be deleted under equi although it is coreferential with the subject "I." Therefore, only coreferential subjects may be deleted under equi. If that is the case then there are structural differences between the subject and object, and it seems unreasonable to claim that the linear order of subjects and objects relative to one another is the only parameter that distinguishes subject from object in a VSO language like Arabic. Similar arguments might be adduced from

Breton. While Breton is undoubtedly considered to have a VSO order, this fact is not as clear from the surface structure as it is in the case of Polynesian languages (e.g. Samoan).

Arabic shares the notion of nominal sentences with Breton as it does not have the consistency of maintaining the inherent VSO order. A frequent word order in both Breton and Arabic involves the subject in initial position. Nominal sentences in Arabic are good examples of how subject takes sentence initial position, e.g.

Su	predicate
al-waladu	dakiyyun
the boy	clever
The boy is clever.	

The word order shown in the previous example, however, is to be analysed as due to the operation of a rule of topicalization. In fact, the previous sentence has an underlying VSO order; the original order could be illustrated as follows:

V	Su	predicate
yakuunu	al-waladu	dakiyyan
be	the boy	clever

As a result of topicalization, we got the following form:

Su	V	predicate
al-waladu	yakuunu	dakiyyan
the boy	be	clever
The boy is clever.		

Affected by copula deletion which exists in Arabic, the surface structure of the sentence took the form:

Su	predicate
al-waladu	dakiyyun
the boy	clever

In this first example the opposite order (of putting the predicate first and the subject second) is not possible. But in other constructions of subject and predicate, where the predicate is a prepositional phrase, the reverse order is possible, e.g.

predicate	Su
fi l-baiti rajulun	
in the house a man	
A man is in the house	

Another type of topicalization is attributed to situations where topic NP's take sentence initial position, e.g.

- (a) tuffahatan akaltu
 an apple ate I
 I ate an apple

-an in the topic NP tuffahatan="apple," is an accusative case marker. According to basic word order, VSO, this sentence is originally:

- (b) V S O
 akaltu tuffahatan
 ate I an apple
 I ate an apple

After fronting is applied, the resulting construction, sentence (a), resembles sentences affected by clefting, e.g.

ʔinnaha tuffahatan allati akaltu
it is an apple that ate I
It is an apple that I ate.

Under certain circumstances, however, word order is fixed more rigidly. In negative main clauses no other element precedes the verb, e.g.

la ʔuḥibbu an aquuda bisur^Catin ʕindama tuḥliju
neg. like to drive fast when snow (verb)
I do not like to drive fast when it snows

Thus in this example word order, VSO, is fixed while in other instances some elements of the sentence which are in the topic can be placed before the verb. Consequently, if SVO word order is basic in Arabic, then it should have priority over VSO. In other words, the word order of the previous sentence should not be fixed so rigidly to the extent that it almost would not allow NP fronting rule to operate if the original word order is SVO. Obviously, the claim that VSO languages may have an underlying SVO order does not seem to have solid grounds.

Further investigation of the two languages (Breton and Arabic) enforces the argument that both languages have VSO order in spite of the fact that topicalization produces an output which looks similar to SVO.

In this respect I would like to focus on one significant distinction between Breton and Arabic. In spite of the fact that

the two languages have a VSO underlying structure, yet there are explicit differences revealed in the surface structure. The point I want to make is that if the two NP's in a transitive clause - in Breton - are structurally equivalent except for order, there is no way to distinguish the result of topicalizing the subject from the result of topicalizing the object. In both cases, the output is a structure [NP V NP] if no pronoun copy, which is optional, is left behind. Thus some additional structure should be positioned from which the subject-object distinction can be established. This lack of structural distinction raised such claims about VSO languages.

As for Arabic, a different argument is raised. Other than order, the two NP's in a transitive clause are not structurally equivalent which makes it feasible to distinguish results of topicalizing the subject from results of topicalizing the object. One of the distinctive features of subjects and objects is the case inflectional markers. Subjects usually carry the nominative case markers -u, -un, while objects usually carry the accusative case markers -a or -an, e.g.

V	Su	O
akala	al-waladu	al-mawzata
ate	the boy	the banana
The boy ate the banana		

-u is the nominative case marker for definite subjects.

-a is the accusative case marker for definite objects.

while in:

akala	waladun	mawzatan
ate	a boy	a banana
A boy ate a banana		

-un is the nominative case marker for indefinite subjects.

-an is the accusative case marker for indefinite objects.

As genuine VSO languages, Breton and Arabic share the property of having embedded clauses which appear in the same form as main clauses except that topicalization is generally not applicable in them. To illustrate this point, let us consider this example from Arabic:

ʔa ^C rifu	annahu	sayarji ^C u	ba ^C da	ʔusbuu ^C ayn
I know	that	he will return	after	two weeks

If topicalization is not allowed in this construction, it follows that there does not seem to be clear evidence that those languages have a basic SVO order.

Berman's argument aims at coming up with conclusions concerning the need for structural differences between subject and object in languages such as Samoan, Tongan, and Breton where the basic order is VSO.

One of the arguments that has been raised is the possibility of taking VSO order of Breton to be derived. In other words, at some more abstract level the language might be assigned SVO or SOV basic order with a rule of a verb fronting to yield the observed VSO order.

In the case of Arabic the VSO claim loses its force and validity as the VSO order, in Arabic, arises before topicalization applies. Therefore, the point of positing an order other than VSO disappears, which confirms that Arabic has a basic VSO order while SVO is a derived one. In other words, the force of our argument hinges on the fact that in VSO languages rules exist which are sensitive to a structural difference between subjects and objects. The basic issue, at least in Arabic, is independent of the linear ordering of the affected NP.

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DEFINITENESS IN ARABIC FROM AN
AXIOMATIC FUNCTIONALIST POINT OF VIEW

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Axiomatic Functionalism, a modern approach to the analysis of language, has been originated by Mulder and Hervey, the two main figures in linguistics of St. Andrews school, Scotland. The approach in question seems, in many respects, to be an extension to Martinet's functional linguistics in France. The roots for the two approaches may be deeply rooted in the functional views of Prague school.

The term 'axiomatic' derives from the set of axioms which constitute the main elements¹ of Mulder's linguistic theory, and 'functionalism' is a fundamental notion spreading all over the theory.

Grammar according to the above approach is a system the components of which are morphology and syntax. The essential characteristic feature of syntax is that the constructional relations in it are, by definition, relations between elements that can stand in tactic asymmetrical relations to one another, whereas in morphology, constructional relations are, by definition, symmetrical.²

As a first step in a syntactic analysis, the investigator starts with reducing the syntagm³ to its minimal syntactic entities which we call pleremes. This operation is mainly, if not entirely, dependant on the distinction between morphology and syntax, which is basic to the present approach. In an article called "Pseudo-Composites and Pseudo-words", Hervey and Mulder lay down certain criteria for the identification of morphological complexes as opposed to syntactic ones. The four major criteria in that article are:

1. A morphological complex must be a potential constituent.
2. A morphological complex must contain, at least, two signs; otherwise it is not a complex on the sign level.
3. A morphological complex should have as its constituents only simple signs, i.e. all immediate constituents of a morphological complex must, at the same time, be its ultimate constituents.

4. The members of a morphological complex must all stand in a relation of simultaneity to one another in the complex in question.

To investigate the grammatical identity of the definite article "al" in Arabic, the complex alkitāb (the book) is taken for analysis. On applying the above four criteria the following observations are made:

1. The complex alkitāb (the book) can be shown to be a potential constituent in higher constructions as in:

alkitābu alḥadīdu - "the new book"
alkitābu ḥadīdun - "the book is new"

2. Commuting al (the) with zero we get kitāb (a book); and kitāb with qalam (a pen), we get alqalam (the pen). These commutations show that the complex alkitāb is a combination of two simple signs; and this satisfies the second criterion.

3. Being unable to identify more than one simple sign in each of al (the) and kitāb (book), we may say that the two signs form the immediate, and at the same time, the ultimate constituents of alkitāb (the book); and this satisfies the third criterion.

4. The fourth and last criterion demands that a morphological complex should not have any potential for tolerating syntactic relations. To test whether we can find a syntactic relation within the boundaries of the complex in question we first apply the simple technique of "permutation". The result would be kitabal which does not constitute a well-formed⁴ construction in Arabic. Having failed, via permutation, to discover a syntactic relation within the complex under analysis we resort to the other equally important technique of "commutation". This involves discovering a constituent which can validly⁵ commute with either al (the), or kitāb (book). If within the boundaries of the new commutant a possibility of a potential of elements standing in a tactic asymmetrical relation is discovered, one has actually demonstrated that the complex alkitāb is syntactic. On the other hand, if the new commutant involves a grammatical complexity (morphological or syntactic) then this would implicitly

lead to violating the third criterion (i.e. the immediate constituents of a morphological complex should themselves be the ultimate ones). The commutation of al (the), by aurāq (papers), to get aurāq kitāb (papers of a book), would be termed invalid since the new commutant is not mutually exclusive with al. On the other hand, if we leave al constant and commute kitāb (book), by qalam wa daftār (a pen and a note-book), we find it inadequate to consider the new commutant an immediate constituent alongside with al. Added to this the fact that the commutable elements are, again, not mutually exclusive. Having applied the aforementioned criteria and failed to discover an asymmetrical relation within the complex under investigation we are in a position to support our earlier hypothesis that the complex al kitāb (the book), is a morphological one consisting of the monemes (morphemes) al (the), and kitāb (book).

Further investigation shows that the occurrence of al before an adjective, a numeral and a supplement that are subordinated to a definite nominal is, in fact, determined by the definiteness of that nominal. In other words they are contextually determined rather than functional. Omitting al from the nominal itself would make the sub-ordinated elements automatically lose their al's. It should be noted that a noun does not acquire definiteness only via al, but also by some other means like being modified by a possessive as in kitābi (my book), kitābu sadīqī (my friend's book), or kitābu ṣadiqāʾi alṭalāʾa (my three friends' book).

The adjective, numeral and supplement which stand in a sub-ordinative relation with respect to a nominal may themselves acquire al's by virtue of the definiteness of the nominal. This is shown by the following example:

al kutubu alṭalāʾa al kabīra al mawṣūda ^Cala altāwila
(the three big books on the table)⁶

The loss of al's before the modifying elements obtains by subtracting the definite article al from the nominal. Thus using kutub instead of al kutub would give:

kutubun ṭalāʾa kabīra mawṣūda ^Cala altāwila
(three big books on the table)

Similar considerations regarding the presence and absence of al's before the peripheral sub-ordinated elements would apply if the nominal itself is modified by a possessive as in:

kutubu ṣadīqī alḥalāʿa alkaḥira almafūda ^Cala alṭāwila
(my friend's three big books on the table)

The absence of ṣadīqī (my friend), which provides definiteness to the noun kutub (books), and consequently to the peripheral elements sub-ordinated to it would cause those sub-ordinated elements to lose their al's:

kutubun ḥalāʿa kaḥira mafūda ^Cala al-ṭāwila
(three big books on the table)

The construction kutubu ṣadīqāʿi alḥalāʿa (my three friend's books) seems to involve certain points which make us reconsider our earlier hypothesis about the grammatical identity of the definite article al. Looking deeply in the problem we find in:

alkutub	(the books)
and kutubu ṣadīqāʿi alḥalāʿa	(my three friend's books)

that al (the) and ṣadīqāʿi alḥalāʿa (my three friends) are mutually exclusive. The latter commutant clearly involves a grammatical complexity, namely a syntactic one. The construction in question is analysable into two immediate constituents:

kutubu / ṣadīqāʿi alḥalāʿa
my three friend's / books

This, in effect, means that the immediate constituents are not themselves the ultimate ones; and this violates the third criterion for identifying grammatical complexes and consequently leads to the refutation of the hypothesis that al is a morphological element (i.e. a morpheme). Instead, the hypothesis⁷ that al is a syntactic element (plereme) will have to be adopted.

Footnotes

1. The other complementary statements of the theory are definitions whose purpose is to clarify new and vague terms in the axioms and the definitions themselves. Theorems are yet other theoretical statements that may be deduced from the set of axioms and definitions in the theory.
2. Symmetrical relations in morphology imply relations of simultaneity. A complex such as "cats" in English would be regarded morphological as the relation between the signs "cat" and "plural" is simultaneous (unordering). Similar consideration apply to "went" and "walked", each of which is regarded a simultaneous bundle of two morphemes. That is to say whether we regard "went" a bundle of "to go" + "past" or "past" + "to go" would not bring about a functional difference.

Asymmetrical relation, on the other hand, implies ordering relation. This is tested by "permutation" as in:

The bus station	or	Jack hit Paul
or The station bus	and	Paul hit Jack

There is a clear functional (relevant to communication) difference between the two. It can also be tested by commutation as clarified by the discussion below.

3. A syntagm in Mulder's theory corresponds to the sentence base which may be interpreted as the total complex of those features which correspond to tactic entities. In more common terms, it is a syntactic construction with no prosodic features.
4. "well-formedness" implies being functional, i.e. separately relevant to communication; and this further implies that the construction should have the potential to stand as an immediate constituent in a higher complex.
5. For the validity of commutation emphasis should be laid on the fact that the commutable elements should mutually exclude one another in an equivalent context without affecting the well-formedness of the constituents of the complex.
6. A more literal translation would be: (the three big books that exist on the table).
7. Our final descriptive statements remain, in view of the present approach, hypotheses which may be refuted if the facts in the data prove them wrong.

Adjectives, Nouns and Copredication in English

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1 Introduction

1.1 The principal aim of this paper is to make explicit the cofunctional relationship between adjectives and common nouns in English in terms of semantic copredication. The notion is not new: Quirk, in the celebrated work A Grammar of Contemporary English, uses the term "co-reference" to refer to the relationship between the noun 'daughter' and adjective 'pretty' in the sentence: "Your daughter is pretty."¹ W.P. Lehmann (1962) uses the term "compound references" to refer to the elements in the phrases "green roofs," "green dresses," etc.²

The idea could also be traced back through Strawson, Geach, Lyons,³ Reichenbach,⁴ and Leibniz back to Plato himself.⁵ However, since it is not the main purpose of this paper to trace the developments of adjectives and nouns as word-classes, I shall simply refer the reader with further interest along this line to the references below and the bibliography at the end of this paper.

Although these scholars, and indeed many others, have briefly mentioned or suggested the line of argument, very little work - one that could be considered a substantial presentation - has been done in this field. Richard Montague mentions - perhaps with a suggestive overtone of completeness - in his "Universal Grammar" that "indications" of how to treat adjectives are given in his "On the Nature of Philosophical Entities," (1960, 1967), while in reality he gave a more generous treatment in "English as a Formal Language" (1970).⁶ But even in the latter, the treatment was indeed thinly veiled against the backdrop of other philosophical topics.

J.A.V. Kamp, in 1973,⁷ gave a paper at the Cambridge Colloquium on Formal Semantics of Natural Language entitled "Two theories about adjectives." The paper, at first glance, purports to advance a theory on adjectives; but, so it seems, the author in the final analysis turns around and concentrates his attention on two issues: one is to repair some of Montague's formulas which have been generally recognized as inadequate in dealing with a certain group

* All the footnotes are put together in one section at the end of the paper - before the Bibliography.

** This paper is based on a research done at Cambridge University, England (82-83); the present title is closer to what I had intended.

of adjectives - namely, one that includes 'alleged', 'former', etc.⁸; the other to answer the group of philosophers who believe that positive adjectives stem from comparative sources.

1.2 The underlying intention of this essay is to demonstrate in a simple straight-forward manner that a formalized semantic metalanguage system could be built up - one, perhaps, not as "ritualistically" complicated as that (or those) proposed by most Montagueans - to show that English adjectives (though not all) do behave like the common nouns, and that the justification for this procedure will gradually unfold itself with the progress of the presentation. But first clarification of some terms and concepts must be stated - even if only for convenience.

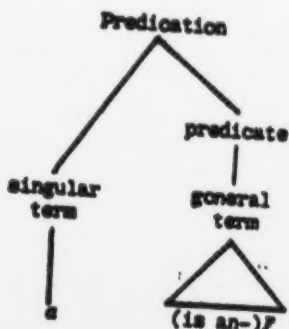
The terms predicate and predication themselves are usually prone to confusion, perhaps because of their long history of usage. From a semantic viewpoint, Lyons (1977) has this to say:

...a predicate is ...a term...used in combination with a name in order to give some information about the individual that the name refers to: i.e., in order to ascribe to him some property...⁹
[Italics mine]

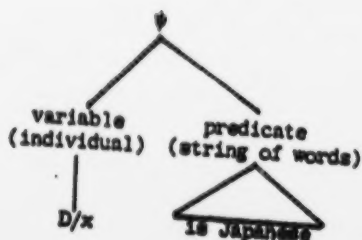
Quine (1960) defines predicate - in a traditional sense, perhaps - as a "general term," and what Lyons calls "name" a "singular term"; and that predication a process of combining the two "to form a sentence that is true or false according as the general term is true or false of the object, if any, to which the singular term refers."¹⁰ Hodges (1977) on the other hand defines "predicate" as "a string of English words and individual variables, such that if the individual variables are replaced by appropriate designators, the whole becomes a declarative sentence with these designators as constituents,"¹¹ with an added comment that "predicate" (in boldface) "is often used by grammarians and philosophers in ways which are at variance with the definition we have given. For example, some people use the word to mean property or quality."¹²

Strangely enough, Hodges' view seems to coincide with Quirk's - compare Quirk's diagram on page 35, (op.cit.), except that Quirk appears to have given more prominence to the concept of predicate than predication, and that his diagram should be construed from a syntactic viewpoint.

All the alleged variance in these definitions - at least as proclaimed in Hodges' statement - can indeed be reconciled once the statements are schematically represented in some form;³ compare the following tree-diagrams:



Diag. A



where 'D' is an appropriate "designator", and D = Mr. Hashimoto; and '/' indicates a process of replacement.

Diag. B

It is obvious that Diagram A represents Quine's concept of predication, and that B Hodges'. Normally, Quine would represent the notion either as "s is (an) F" or simply "Fs"; and in general so does Hodges, e.g., "Ja".¹⁴

For our purposes, then, we shall define predicate - in the usual, traditional sense - as a term that refers to a property (quality, or state) which could be ascriptive of some individual name(s); and copredication as simply a process of combining two predicates, usually from two different sources - e.g., an adjective and a noun, or a noun and a noun, etc., through a commonly accepted well-formed procedure. For example, we could think of 'a tall man' as "something is tall & something is a man," and that "something" is one and the same entity. With the aid of symbolic notations, the phrase could be formulated more simply:

sl.1 (Tx & Mx)

using the obvious abbreviations 'T' and 'M' to stand for the predicates. This is indeed a very simple example brought in to render added clarity to the definitions at hand. In reality, however, the process can be quite complicated -

compare, for example, a 'house-boat' and a 'boat-house'.

Other concepts of opaque nature will be defined, or clarified, where and when necessary.

1.3 Since, of necessity, there is a limit on the length of the essay, and since the subject as proposed here is, by nature, extensive in dimensions, the scope of the paper must accordingly be tailored. Consequently, only the major aspects will be dealt with, although some suggestions on related topics may be given in terms of a theoretical extension to be developed later, or elsewhere.

The nature of the subject-matter may dictate that the paper should deal at least with two aspects of predication: one from the common noun source, the other the adjective. The former generally does not present a great deal of problems, as the common nouns have almost always been a natural source from which scholars, ancient or modern, draw their predicates. It is the latter, however, that has raised questions and doubts as to the nature of its "true" category, and has indeed become a source of controversies even today. Reichenbach, for example, prefers to group "adjectives" with "verbs": "The separation of nouns from the two others [adjectives and verbs] can be justified in so far as the noun can be interpreted to indicate the class for which the predicate holds...The division into adjectives and verbs, however, is of questionable significance."¹⁵ In fact, he went on to say: "...it is better to put the adjective on a par with a tense of a verb."¹⁶

Quine (1952), on the other hand, wishes to have no distinction between nouns and adjectives at all;¹⁷ and in his later work (1960) he adds "verbs" to the group and calls them all "general terms."¹⁸ Other formalists would like to think of the adjective as part of an intransitive verb, once coupled with a copula, since it conveniently forms, in most cases, a one-place predicate.¹⁹

From this viewpoint, therefore, we will devote our attention mainly to the adjectives, and let the nouns conduct themselves within the accepted decorum.

In terms of copredication, however, the problem is not as grave as it appears, once the formal system is set up. For, indeed, whether we want to predicate an individual-name from an adjective source, e.g.:

s1.2 He is famous

or from a common noun source:

s1.3 He is a pianist

the symbolic representation would have the same underlying structure, i.e., 'Fx', and 'Px' respectively; and these two predicates can easily be combined - under the conditions that satisfy the rules of the system:

s1.4 (Fx & Px)

except that in this particular case, the combination happens to raise a question - of a different kind, i.e., one of semantic ambiguity: "Is the person in question a famous pianist, or is he famous and a pianist (as in the case of Dudley Moore)?" We will glance at adjectives of this kind again later.

II Nomen Adiectivum

2.1 From a syntactic viewpoint, adjectives have been elaborately classified by various scholars. Quirk, again, classifies them in terms of syntactic functions - although he points out some features overlapping with other word-classes in terms of form. For him, the adjectives that can function as both "attributive" and "predicative" are called central, and those only as one or the other peripheral.²⁰ Such terms would be convenient for a system that contains a cross-reference procedure between syntax and semantics - as one that Montague proposes in "Universal Grammar" or PTQ.²¹ Although we have no intention to meddle with such procedures, we will adopt the terms for other purposes - cf. infra.

Thomson and Martinet - henceforth referred to as simply Thomson (1980), give the following classes as the "main kinds of adjectives":²²

- 1 of quality: square, good, golden, fat, ...
- 2 demonstrative: this, that, these, those
- 3 distributive: each, every, either, neither
- 4 quantitative: some, any, no, few, ...
- 5 interrogative: which, what, whose
- 6 possessive: my, your, his, ...

These classes, obviously, must be reclassified before they can be utilized in our system, since some items such as 'each', 'every', 'some', 'any', etc. must be considered quantifiers, while others, such as 'no', 'either (or)', 'neither (nor)' etc. are clearly logical operators, and so on. It appears that no existing syntactic classification would effectively serve our purpose, and that we should do well to reorganize the adjectives as a whole into the following schema:²³

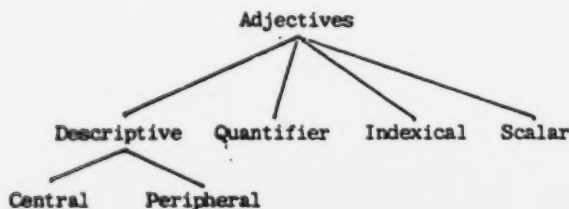


Fig.1

These categories are by no means intended to be watertight compartments as it were. Some doubtless will overlap - in the sense that some members of one category will also belong to another. But this we will examine later. At this point, let us look at what they all mean.

'Descriptive' may be accused of being so general a term, since most, if not all, adjectives (henceforth 'A', and used when appropriate)²⁴ are descriptive in one way or another; and it may, indeed, be argued that Lyon's term "ascriptive" (cf. *supra* - §1.2) is much more appropriate. For those who prefer the latter could do so without changing the intended meaning of the term above.

Under this rubric, we deposit two large classes of English adjectives - the central and the peripheral. As a time-saving device, the term "central" is quite convenient, i.e., once the underlying principle as explained by Quirk is understood, the reader will find no difficulty in identifying the items in a dictionary, thus enabling us to eliminate the necessity for a special listing. The term "peripheral", however, is here adopted for different reasons, since we do not have the same problems as Quirk does.

In formal semantics - at least from our point of view - it matters not whether the adjective is used in an attributive or a predicative position syntactically; the transformation into a symbolic notation - at least for a one-place predicate - will always be in the same way, i.e., a Predicate-name + an Argument-name. Besides, before the transformation can take place, the expression usually undergoes a paraphrasing process - e.g., an expression such as 'awake' or 'asleep' would be paraphrased as - or semantically approximated to - "in-a-waking-state", or "in-a-sleeping-state", or something similar to it; and whether one uses 'A' (= awake) or 'W' (= in-a-waking-state) as the predicate, i.e., 'Ax' or 'Wx', it is immaterial.

The term peripheral, for our purposes, is brought in merely to signal a warning that the underlying structure of the adjective in question requires a close examination. For instance, Quirk - again, to resort to his work - gives a phrase

s2.1 a really alive student

as an example of an a-A (adapting Quirk's notation here) that can be used as an attributive adjective (abbreviated A-N, where necessary) to mean a "lively" student. Compare the above phrase with the following:

s2.2 She is still alive

Here both phrases 'still alive' and 'really alive' would produce the same underlying structure, e.g.,

s2.3 X + a-A

where 'X' is an appropriate modifier. (In fact, for our demonstration here, the underlying form could be simply: 'X + A')

If Quirk's interpretation of s2.1 is correct - and I have no doubt that it is, then the copredication process of this particular instance would

go through a test case - projecting ourselves into the development of the next section for a moment - i.e., we can say that

s2.4 x is lively & x is a-student²⁶

while

s2.5 x is still & x is alive

would yield a negative result; for one thing, the analysis unwittingly turns 'still' into an A, while in the original statement a modifier - in this case an adverb (ADV). Yet, there is no way to leave it out - even though our analysis here focuses only on adjectives - and to retain the complete meaning of the statement. From this viewpoint, then, we will have to channel the predicate 'alive' (of s2.5) to another category, namely, indexical for reasons to be stated.

At this point, one may raise a question: "Are we splitting the same adjective into different lexemes at will to suit our convenience?" The answer is "No!", since the categories proposed above are NOT ontological but functional in nature.

2.2 Before we leave the central and peripheral categories, let us examine very briefly the nature of the predicates that pose some problems, such as 'famous' in 'a famous pianist'. An earlier analysis (s1.4) has shown that

s1.4' (Fx & Px)

can generate at least two readings: one "a famous pianist"; the other "someone is famous and he is a pianist," again, as in the case of Dudley Moore. Indeed, most people know and remember Mr. Moore as a well-known actor and comedian, and very few know that he is also an accomplished pianist - at least in US. In general when the expression of this sort is used, the first reading is intended, which indicates that the use of the adjective - in this particular case - depends almost entirely on the use of the noun - i.e., if the person had not been a pianist, he might not have become famous at all; in fact, the usage clearly indicates that.

Quirk mentions a class of "non-inherent" adjectives which at first glance appear to be close to what we are talking about here. At a closer look, however, one cannot say that someone's 'woodenness' or 'being wooden' - from the example "a wooden actor" - was caused by the fact that he is an actor, while it is so in the case of 'a famous ...' Quirk gave other examples of this type, but none parallel.²⁷

The unfortunate word "cause" that we have been applying - for lack of a better term - to this type of predicative relationship might sound objectionable to some readers. We could, perhaps, think of this type of copredication in terms of dependency relationship - not so much in the sense of the Dependency Grammar, but in the general sense²⁸ - i.e., the semantic interpretation of one predicate depends on the other, in this case that of the modifier depends on the head. And if this is a more plausible explication, then we can dub the adjectives of this type pensile [*< L pensilis*];²⁹ otherwise, they would take the name central as explained earlier.

2.3 The notion of quantifiers is familiar to most people, so I will be brief. Not all the quantifiers are expressed in the form of adjectives, as we shall see. But first let us modify the quantifier node of the tree-diagram in Fig. 1; the node was given there without its branches:

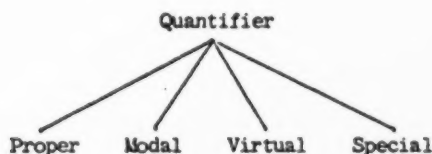


Fig. 2

The quantifiers referred to here are only those capable of assuming a role as such in a semantic interpretation, or those that can be fitted into a quantificational scheme in a formal system. There are terms or expressions that may be considered "quantifiers" from a syntactic viewpoint (cf. Quirk's §4.25f, Op.cit), which will not be dealt with here.

Let us look at the following list:

- 1 All, any, every, each, ...
- 2 Some, at least one, ...
- 3 It is possible that.../necessary that...
- 4 (All) those and only those...

It will be recognized that (1) fits into the schema of the universal quantifiers; (2) the existential; (3) the modal; and (4) the virtual class or abstraction quantifiers. There are many other expressions that would probably

fit into these quantificational schemata, but these are the typical, and enough to bring back the memories of what we had learned in the dusty past. Some expressions, however, may appear like quantifiers, but semantically they may function as something else, e.g.:

- s2.6 Everybody who is nobody goes to Roxy on the Strip
 to try to meet everybody who is somebody, who, hopefully,
 could help him get a break in showbiz.

The special (or occasional) type are any quantifiers that have not been mentioned so far; they could be a combination of the types mentioned earlier, e.g., as expressed in 'at least (two/...)', 'at most (twelve/...)', etc.; or those not as commonly used as in the Theory of Possibility that Rescher recently proposed, e.g.: ' $[\phi]_A$ ' for "the x's whose actual property is ϕ ," which is in fact an abbreviation for ' $[x:\phi x]$ '; or ' $[\phi]_N$ ' for ' $[x:\phi!x]$ ' - i.e., "those x's that ϕ is an essential property of," etc.³⁰

2.4 The term "indexical" has been proposed by Montague, but then again as Thomason (obliquely perhaps) and other scholars - such as R.M. Martin, and Hintikka³¹ - have suggested that most of Montague's ideas are rarely original with him; it was the novelty in the presentation that Montague aimed at.

Montague gave "former" as an example of indexical adjectives; but obviously many more - e.g., 'late' as in 'the late president', 'previous', 'last', 'yesterday' as in 'yesterday afternoon' - can fit into this category. They are indexical because they usually require some kind of markings indicative of something - place, time, or degrees of something else. For example, 'a former president' may be analyzed in a simplified fashion thus:³²

- s2.7 x is a-President-at-Time- t_1 , & it is not the case that
 x is a-President-at-Time- t_2

where t_1 is prior to t_2 (as well as to the time of utterance)

There are also interrelationships among predicates of this type, e.g., the predicative relation of the 'late president' would be subsumed³³ in that of the 'former', etc. Also, like other groups of predicates, the analysis can become complex, e.g., 'a former student' could be either a one-place or two-place predicate depending on its use. And, as usual, this group of adjectives could also overlap those of the quantifiers, as in the cases of 'main argument', 'principal achievement', or 'likely event', etc. In fact, the latter group of

adjectives require both kinds of analysis - as I demonstrated in a preliminary version (the proposal) of this paper.

2.5 Before a meaningful discussion of scalar adjectives could be made, a basic but necessary concept must be mentioned. In recent years, there has been a development in semantic interpretation of the formal system, probably in an attempt to resolve the differences between the underlying philosophy of the various schools of thought, e.g., the Classical, the Realist, the Formalist, the Intuitionist, etc. Out of all this comes the notion of weak and strong reading. The quickest and simplest way to demonstrate what the concept means is to look at the underlying notion of the logical disjunction (or alternation).

In general, when people think of a statement of the form 'A v B', they think that only one of the components should be true for the whole statement to be true, and not both at the same time. For example, when a mother asks her child if (s)he wants an orange or a banana, she expects the answer to be a choice of one and not both at the same time (of course, the child may say "both" in any case). This usual expectation is commonly considered a strong reading of the statement. The logician, on the other hand, usually allows the following truth-value:

s2.8

A	v	B
T	T	T

This is a weak reading.

2.6 A scalar adjective is one that can be made into a comparative form. At this point, one may protest: "But most adjectives are susceptible of comparative forms!" The comparative form referred to here is of a special kind. To see this clearly, let us consider the following situation: let us say that John at the age of 16 was nice and slim as he was a keen athlete; at 20 his friends began to feel that he was fat; at 26 he got fatter, at 30 he was even fatter, at 36 he was fatter still, and at 40 he was very, very fat, and so on.

Here we see that the same adjective applies to the same person (or entity) in a climbing scale. The following and many like them are capable of behaving like the example above, and hence considered scalar adjectives: funny,

happy, heavy, expensive, unpleasant, etc.

Not all adjectives are capable of this type of a scaling pattern - e.g.: daily, monthly, quarterly (?), two-legged, four-wheeled, etc. Some logicians would like to regulate the everyday speech in such a way that the following words are not used as scalar predicates at all: square, perfect, smooth, silent, straight - as in 'a straight line'. Perhaps, there is something to be said for this wishful thinking after all; for example, if it can be asserted that AB is a straight line - i.e., already a straight line, how is it possible that it can be a straighter line under any circumstance?

What we have discussed so far could be considered a strong-reading of the concept of the scalar adjective; a weak-reading would probably produce an interpretation that includes all the adjectives which Quirk calls "gradable".

III Predication and Copredication

3.1 Under the current pressure, i.e., space - and perhaps time as well, the intended formalized metalanguage system as stated in §1.2 could not possibly reach a fully-fledged stage. However, if a substantial amount of common knowledge about the formal system can be assumed, then perhaps more could be accomplished without much ado. And it is in this manner that I will introduce a formalized system here.

3.2 Conceptually, many familiar theoretical points may be left unsaid, but a notational system should at least be indicated; and for convenience, we shall call our system SMI from a "Semantic Metalanguage based on (Objective) Intensions" - objective in the sense that, semantically, we will adhere to the general use of expressions and not follow any of the subjective use of language.³⁴

The syntax of SMI will be referred to as 'S', whose language is 'L'. L contains a number of well-formed sentences, or sentence schemata, whose instances are sentences in object or natural languages - sometimes referred to as $L_0, \dots, L_n$.³⁵ L also contains a number of propositions, $p_1, \dots, p_n$, which may or may not be of the same number as that of the sentences.

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In specifying the syntactic elements of $\mathcal{S}$, we will assume all that is commonly used in a formal system based on the classical two-valued logic, in particular in the Peano-Russellian tradition, and state very briefly the following:³⁶

- i) ' $A, B, C, \dots$ ' will represent logical formulas, or sentential schemata in L ;³⁷ ' $x, y, z, \dots$ ' and ' $a, b, c, \dots$ ' individual variables and constants respectively.
- ii) ' $P, Q, R, \dots$ ' will be predicate constants, or variables - as the case may be - of degrees to be specified in specific contexts. In general, we will use the obvious, or mnemonic, upper-case letters for predicates, e.g., ' M ' for man (one-place), ' L ' for love(s) (two-place), or ' G ' for give(s) (three-place), etc.
- iii) The following logical connectives and prefixes will be adopted with all their conventions: ' $\neg$ ', ' $\vee$ ', ' $\wedge$ ', ' $\rightarrow$ ', ' $\leftrightarrow$ ', ' $\forall$ ', ' $\exists$ ' for not, or (inclusive), and, if..then, if and only if, is identical with, is a member of, and the universal and existential quantifiers respectively.
Of these, ' $\neg$ ', ' $\vee$ ', ' $\forall$ ' will be regarded as primitives, and the remainder definable in the Peano-Russellian tradition, e.g., ' $(A \rightarrow B)$ ' from ' $(\neg A \vee B)$ ', and ' $(\exists x)A$ ' from ' $\neg(\forall x)\neg A$ ', etc.
- iv) The usual formational rules will also be adopted, e.g., "If ' A ' is a well-formed formula in L , then so is its negation ' $\neg A$ ', ..."
- v) It appears that the only transformational rule we need, if any, at this point is Modus Ponens (MP).
- vi) Whatever else required will be introduced either formally or intuitively, as occasion arises.

3.3 Let us now turn to a Predication System. There are at least two ways of formulating a system: one by specification - i.e., specifying all the required elements and the desired modus operandi; the other by assumption - i.e., assuming that all that is required is there, provided that the data pass a certain test (or a battery of tests), and I am going to do a little of both in formulating a predication system here - perhaps more so of the latter.

For our test cases, a simple device of the form ' x is a -P',³⁸ or simply:

s3.1 x is P

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for a test of predication, and of the form

s3.2 (x is P & x is Q)

for copredication should suffice. Let us take the following examples to illustrate the point: 1) 'red apple', 1i) 'main argument'. The first should appear somewhat thus:

s3.3 (x is Red & x is an-Apple)

or simply

s3.3' (Rx & Ax)

while the second:

s3.4 (x is Main & x is an-Argument)

which can hardly be said to satisfy the well-formedness of a semantic interpretation, and which must, therefore, direct our attention to the necessity of another test procedure - to which we shall return later (cf. also §2.1 - peripheral A) For the moment, let us return to s3.3' '(Rx & Ax)'; how exactly, here one may ask, does the predication or copredication take place - i.e., in the domain of objects in a certain universe of discourse, how does a certain property coalesce with a certain individual? And this is where the concept of virtual class comes into play.

3.4 Although the notion of virtual classes (or the abstraction theory) has, wittingly or unwittingly, been placed on the center stage recently by the Montague grammarians, it can be traced back to Peano, Frege, and Russell. It was Quine, however, who propounded the theory at length,³⁹ and other scholars such as Carnap, Church and, especially, R.M. Martin have in recent years made frequent use of the theory. And while Quine, Carnap and Martin are quite consistent in their presentation - and on the whole their interpretations of the idea coincide, the Montagueans - namely, Dowty and McCawley - seem to have brought in something extraneous to the original theory. But this is not the thesis of this study, and we shall ignore the differences for now. It suffices to say that our theory corresponds to the original.

The quintessence of the virtual class concept can be seen clearly in the following situation: suppose we know that Mrs. Jones is a secretary. How does she become a secretary? Obviously, she did something to qualify herself for the position, e.g., she learned to take shorthand, to type up to a certain speed, to do the filing, etc. To be a secretary is in fact to be

counted as one among secretaries; in other words, to be admitted into the class of secretaries. Indeed, Mrs. Jones is a secretary only by virtue of the fact that she has fulfilled certain conditions required of her. In short, x is admitted into a class by virtue of the fact that x has fulfilled the requirements stipulated, formally or informally, for its membership.

It is from this viewpoint that we consider this type of classial entity a virtual class. It is worth noting that Mrs. Jones does not have to born to be a secretary⁴⁰ simply because she wants to be one; nor is she obligated to remain one for the rest of her life. She could, for example, go through another professional training, say "nursing", and become a nurse at the end of the training, provided she fulfils the requirements for the profession; in which case she would be, logically speaking, admitted into another virtual class.

It is also worth noting that this type of classial entity is not committed to its membership. Suppose, for example, we have a Japanese professor in the Linguistics Department who wants to offer a Japanese Typology course, say, in the autumn of 1962. The course is announced, and the classroom space allocated. But when the term begins, the Board of Graduate Studies discovers that no student has signed up for it. The class is then cancelled. However, in all the inquiries and replies thereto, that particular class would still be referred to as a class whether it materializes or not. The underlying notion here is not far from what some Montague grammarians talk about in

s3.5 Jane came in to look for friends

in the sense that there is no indication whether the class of Jane's friends has any member - as opposed to "John seeks a unicorn."⁴¹

For our purposes, we will utilize the notion of the virtual class in this fashion, i.e., "non-committal" - to borrow Quine's term; and it "carries no general presumption of existence of the class."⁴²

3.5 Schemtically, the virtual class has been variously represented: Frege, for example, uses a Greek letter with a smooth breathing: ' $\acute{e}(c...)$ ';⁴³ while Quine: ' $\{x:Fx\}$ ';⁴⁴ and R.M. Martin, following Peano, the inverted epsilon thus: ' $\kappa(-x-)$ '.⁴⁵ Russell, on the other hand, places a circumflex

over the variable: ' $\exists(x)$ ', which gives the advantage of being able to turn it into a propositional function ' ϕx ' or more specifically ' $\phi!x$ '.⁴⁶ In this presentation, we shall use the notation currently in vogue, i.e.,

$$s3.6 \quad \lambda x(...x...)$$

for a virtual class or a one-place abstract, with appropriate restrictions to be stated below. So, for a predicate 'man', for example, we shall write

$$s3.7 \quad \lambda x(\lambda b x)$$

which reads: "all the entities x such that x bears the property of being a man." And to say that "some individual y is a man," we will indicate

$$s3.8 \quad y \in \lambda x(\lambda b x)$$

i.e., if we take s3.7 as a virtual class; but if we want to regard s3.7 as a form of a predicate - in this case, a complex one - we shall rewrite s3.8 as follows:

$$s3.9 \quad (\lambda x(\lambda b x))y$$

with a provision that the parentheses will be thinned down where there is no danger of confusion, e.g., ' $\lambda x(\lambda b x)y$ ', etc. We could also utilize our sentential variables of L , e.g., ' $\lambda x(A)y$ ' when we wish to make a general statement or as a shorthand procedure, where desired.

The above statements, s3.8 and s3.9, clearly show that the schematic expression in s3.6 can function either as a class or predicate symbol mutatis mutandis, of course.

Although it is quite clear at this point that we will not be able to utilize the virtual class theory to the fullest extent in this particular study, it is still necessary to state the restrictions that accompany the use of these schematic expressions - lest it become a source of misconception; hence, the following will be our rules and definitions for Abstraction - one each should suffice here:

D-Abst 1 ' $\lambda x(Px)y$ ' as an abbreviation for

$$'(\exists x)(z = y \ \& \ (\exists x)(x = z \ \& \ Px))'$$
⁴⁷

granted, 'z' must not be free in the sentence represented by 'Px'; but that much is standard convention.

R-Abst 1

$\vdash \lambda x(B)y \quad \leftrightarrow \quad A$, where A and B are any formulas and x is an individual variable not free in A , and B differs from A only in containing free occurrences of x where and only where there are free occurrences of y in A .⁴⁸

We should want, perhaps in future use, our rules and definitions to extend over the cases of two- or more-place abstracts, naturally, with appropriate changes.

3.6 There are obvious advantages⁴⁹ in formulating a theory of predication (or copredication) in terms of the Virtual Class or Abstraction theory: first, as we have tacitly shown, it allows us to conflate the notion of class with that of property; second, it allows us to talk about a class as an entity without a commitment to its existence; third, it allows an easy access to complex predicates e.g., consider again the predicate 'man': if we choose to define man as a "rational animal", then instead of stating ' $\lambda x(M)$ ', we can write:

$$s3.10 \quad \lambda x(Rx \ \& \ Ax)$$

In fact, we might say that s3.10 is the kind of image we want to present in terms of copredication in our analysis, i.e., one individual object - fictive or instantiated - shares a plurality of properties. In English, this plurality basically does not exceed two in number; when it does, of course, it will require a more sophisticated analytic procedure - one that must be presented on another occasion.

Many more advantages from this type of theoretical conceptualization will emerge, if the scope of the paper permits a fuller development. As it stands, we must be content with what possibilities the above enumeration might bring.

IV The Unsaid

4.1 It would be a miracle of miracles for a topic of this nature to be presented, within the limit of the scope as prescribed, without any shortcomings. There are at least two possible sources of these: one from the involved nature of the subject-matter. The classification and reclassification of the English adjectives, for a semantic analysis as proposed, in itself is a formidable task - i.e., if one wishes to do justice to the subject - let alone its combination and involvement with the nouns. But it would be impossible to talk about a system in which adjectives and nouns are cofunctional with only one or the other element present. And with the prescribed limit on the scope impending on the presentation, the additional task at hand is the selection with a sense of relevancy. Unfortunately, however, the question of "relevancy" is so subjective that the task may fall short of "satisfactory" because of diverging viewpoints.

The other source stems from the formal system itself: to create a formalized metalanguage system with a logical progression, one cannot quicken the pace faster than that of the logical progression itself. And, again, under the same circumstances, one - in a desperate attempt - may resort to the temptation of abbreviatory devices, or the seemingly possible curtailment of logical steps - all of which may, from the reader's standpoint, form a source of perplexity. I certainly hope that this is not the case here.

To be brief, the following list will show what should have been included but for reasons of space and time:

- i) Identity Theory
- ii) Time Theory and other indexical devices
- iii) Boolean classes

4.2 As to the Theory of Identity: one might have noticed that the notion of identity was intuitively utilized in the definition of Abstraction (D-Abst 1). This is because the concept itself is so self-evident - as most scholars claim⁵⁰ - that we can borrow and use it without having to define it beforehand - at this stage, at any rate; yet, as Quine puts it, "despite its simplicity, identity invites confusion."⁵¹ Consequently, most scholars are forced to define it in

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some form, at some point, or another in their theory, especially when it is to be applied to entities other than individual constants, or variables. To derive a full (or fuller) benefit from the Abstraction theory, we should at least introduce some interrelationships of Identity. For example, we may at some stage be forced to make a statement about the identity of two virtual classes, such as

$$4.1 \quad \lambda x(A) = \lambda y(B)$$

e.g., the class of "the passengers of the first voyage of the Mayflower" is identical to the class of "the founders of Plymouth (Massachusetts)." And it would be difficult to do so without any preliminary statements about the nature of identity. In fact, from a theoretical viewpoint, the proofs of many virtual class theorems depend on the Theory of Identity.

4.3 A time theory and other indexical procedures: our theory, as has been shown briefly, requires a device by which a variety of indices - temporal or otherwise - could be applied. For temporal indices, the simplest way is to formulate the time theory in terms of a discrete, relative time-flow system, as proposed by Woodger and Martin,⁵² in which the time-flow is - perhaps only heuristically - reduced to "stretches", "segments" and "discrete moments" of time relative to each other. For example, time t_1 can be said to be prior to (or wholly before) t_2 ; and t_2 an overlapping period of t_1 and t_3 , etc. Once all the interrelations among these segments are worked out, it is not difficult to approximate them to the English tenses.

A time system of this kind is much easier to handle than one that divides the whole universe into different temporal worlds, e.g., the world of the past, present, and the future, etc., as Prior, Cocchiarella, and others have proposed.⁵³ For one thing, if time becomes an insignificant feature in a particular statement, then in the above system the indices could be dropped, and the notion of time "ignored" or "left out as being understood" in much the same way as the notion of time operates in natural languages. While in the other system, once time becomes a fixed entity, it must be accounted for at all times.

If the proposed time marking system is adopted, then, together with a two-place predicate which we will quickly introduce intuitively here, we can demonstrate - in a glimpse, perhaps - the structural differences between the

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gradable and the scalar adjectives.

'E' will indicate a comparative relation of the type "(more-A) than"⁵⁴. So, to say that "John is fatter than Mary" - which is a gradable adjective here - is in fact to say that - to put it in a general form:

s4.2 x is more-A than y is A

With the newly introduced predicate, we could restate s4.2 - using a predicate 'P' for A - more simply and accurately thus:

s4.3 $E < Px, Py >_{t_i}$

where t_i = the time of utterance.

With this kind of a two-place predicate, we can see a necessity for an ordered-pair (or n-tuple) form of statement. In demonstrating the structure of the scalar adjectives, we will, for convenience, transfer the temporal indices from the t 's to the predicates themselves - also, for added clarity, we will enclose the individual variables in parentheses:

s4.4 $E < P_i^A(x), P_j^A(x) >$

where 'i' and 'j' are time parameters, and 'i' is prior to 'j' as well as to the time of utterance, and the superscript 'A' indicates that the predicate is of an adjective source - cf. infra.

Here, the two underlying structures are clearly indicated, recalling that the scalar adjectives are also reflexive.

The indexical system can get quite elaborate, if we allow it to run its course; for example, we all know that other word-classes can also take the comparative form. But even if we confine ourselves within the area of our interest here, we get statements such as "He is more of a brother to me than a friend." Here, not only do we get the change in the type of predicate - i.e., from ' P_i^A ' to ' P_j^B ' (cf. supra), but in the predicate itself. The situation is worse in the following statement: "He used to be more of a father to me than a husband..." Here we get the time indices added on to as well. Of course, the comparative degree can run up and down the scale as it pleases, e.g., "He used to be less of a husband to me than he is now," etc.

Other indexical devices, such as the method of "predicate description" in the manner of Frege's *Art der Gegebenseins*⁵⁵ as frequently utilized by

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Martin and Davidson (as demonstrated in my preliminary version), could also be introduced for various purposes.

4.4 The need for the above two items may be transparent enough, but the need for the Boolean classes may be obviated by the feeling that these are items of theoretical extravaganza. Consider the following statements, however,:

- s4.5 Teachers are educationists
- s4.6 Mammals are mortal
- s4.7 Patience is a virtue
- s4.8 Man is a species

From an extensional viewpoint, and with the limited tool we have, we could interpret s4.5 as an identity statement, e.g.,

$$s4.5' \quad \lambda xA = \lambda yB$$

i.e., the class of "teachers" is identical to that of "educationists." But this would be inaccurate, since it implies that "all educationists are teachers." The same applies to s4.6. Schematically, however, s4.7 could probably be represented thus:

$$s4.7' \quad (\forall z)(\lambda w(Pw)z \rightarrow \lambda x(Vx)z)$$

and the back-translation may appear: "If anything is patient, then it is virtuous."

The obliqueness, or periphrasis, in translation, however, does not affect the sense of the sentence as much as it would in s4.8, e.g.,

$$s4.8' \quad (\forall x)(\lambda y(My)x \leftrightarrow \lambda z(Sz)x)$$

i.e., "If anything is a man, then it is a species, and conversely," which is not the case at all; nor is this sense intended in the original.

If we, indeed, had access to the Boolean algebra, we could formulate s4.5 schematically thus:

$$s4.5'' \quad \alpha \subset \beta$$

i.e., the class of "teachers" is included in the class of "educationists."⁵⁶
A precise underlying structure of s4.8 is a little more subtle and may be given as follows:

$$s4.8'' \quad \alpha \subseteq \alpha\beta$$

that is, "the class of man is included in an intersection of itself with a class of those that form a species." There are many living objects that can form species; but this intersection contains only those that belong to the class of man.

Indeed, the Boolean classes (or functions) would have added clarity and precision to our system, even as small as it has been intended. The transition between the two concepts of classes - i.e., the definitions which link the Boolean with the virtual class - alone would have served the reader with a greater insight into the interrelationships between class and predicate.

4.5 One could, of course, go on suggesting other formal concepts which would render clarity to semantic notions and relations; but semantic problems are, unlike the Rubic-cube tricks, genuinely complex in nature and extensive in scope - so much so, that one can keep on adding to the list *ad infinitum* and still leave the problems staring at one in the face.

NOTES

[N.B.: Apart from the commonly accepted abbreviations, the following (from the Library of Congress list) will be adopted, for convenience:

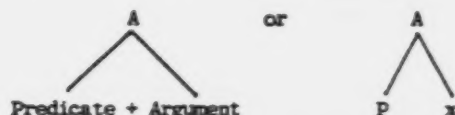
'x' for "see" (< cross-reference)

'xx' " "see also"

All the references given in full in the Notes will not be repeated in the Bibliography.]

- 1 Quirk, et al (1972), p. 247; it will generally be referred to as "Quirk".
- 2 Historical Linguistics, New York, Holt, 1962; p. 196.
- 3 (1977), p. 147ff.
- 4 (1947), p. 251f.; Reichenbach feels that adjectives should be put "on a par with a tense of a verb."
- 5 For the history of adjectives as a word-class, x Lyons (1969), p. 6ff; Robins (1979), Chs II, III, et passim.
- 6 Montague (1974), p. 243, et passim.
- 7 x Keenan (1975) p. 123ff. It is difficult to know how much influence Montague had on Karp's work, since he was one of Montague's students; at the same time Montague acknowledged Karp's criticism on his works even before Karp's paper was published.
- 8 x Thomason's remarks in his introduction to Montague (1974).
- 9 P. 147
- 10 P. 95f.
- 11 P. 154f; italics mine.
- 12 Loc.cit; italics mine
- 13 This is one of the reasons we feel that a formalized metalinguistic system would present ideas more clearly.
- 14 For Quine, op.cit., p. 96f; Hodges, op.cit., p. 57, and 210ff.
- 15 Op.cit., p. 251; italics mine.
- 16 Loc.cit.
- 17 P. 79.
- 18 P. 96.
- 19 Any standard text in symbolic logic would reflect this attitude; Quine (1970) concurs - x p. 22f.
- 20 Op.cit., p. 234.
- 21 Op.cit., see articles concerned.
- 22 P. 15.
- 23 It is not the intention of this study to give a listing of all the adjectives; each classification within the schema will give some examples for clarification.

- 24 This symbol, which would always be underlined, is not to be confused with 'A, B, C, ...' to be introduced later as sentential variables in our formal system.
- 25 (Deleted)
- 26 There is still a hitch here; the problem is similar to the case of 'a famous pianist' - cf. *infra*.
- 27 Except in the case of "lively student"; but I am not sure if he means the same as what I mean. For data, x p. 266, *op.cit.*
- 28 The notion of "dependency" - however one interprets it - is not very far from that used in the Dependency Grammar; but I have no wish to get tangled up in the web of technicalities, if any, at this point. The idea as proposed here is not far from what P.H. Matthews (1981) describes, including the terms "head" and "modifier" - p. 78ff.
- 29 From a semantic viewpoint, the notion could be presented in terms of semantic focus; but the scope of this paper precludes it.
- 30 (1975), Chs. I, II; it is not very likely that we will have a great deal to do with work of this kind, although it would be interesting to compare his formulation of ' $(x:\phi x)$ ' with Quine's ' $(x:Px)$ ' - x (1960), p. 15ff.
- 31 For Thomson, x Montague (1974), "Introduction"; Martin (1979), p. 160ff; Hintikka - x Koener (1976), p. 208ff.
- 32 Some formalists prefer a notation such as ' $t_i < t_j$ ' - where ' i ' is smaller than, or prior to, ' j '.
- 33 In an extended version, the logical relations of predicative subsumption and comprehension, and the related notions should be stated.
- 34 R.M. Martin (1963) has done some work on "subjective quasi-intensions" - p. 79ff.
- 35 We will concern ourselves here with English only.
- 36 In all likelihood, we are overspecifying in the present study.
- 37 These sentential variables, or schematic symbols, should always be thought of as having the following underlying structure:



- 38 Kamp (cf. *supra*) claims that this procedure is no longer in use; however, cf. Montague (1974), p. 213 - when he wrote

' v_0 is a horse'

where ' v_0 ' is a variable.

This type of structure also appears elsewhere in Montague's works; xx Quine (1960) and his other works - *passim*.

- 39 In his System of Logic (Cambridge, Mass., 1934), p. 48ff; in his Brazilian lectures: O Sentido da Nova Lógica (1942), published by Martins in São Paulo, 1944, he elaborated the idea; and in his (1969) he departed somewhat from his original formulation.
- 40 At one point, scholars divided classes into "real-" and "pseudo-classes"; and a typical example of the real class is a class of "mothers", "fathers", & of "ancestries", etc. Indeed, one cannot become a mother just in the same way as one can a secretary; it involves a physical transformation, etc. But this is a highly explosive material, and we should stay clear from it as far as possible.
- 41 Regardless of Bennett's claim - i.e., there are two readings of this statement - we all know that there are no unicorns; x Partee (1976), p.142.
- 42 Quine (1969), p. 35.
- 43 During Frege's time, it was ambiguously called the "graph of function..." - x Geach et al (1952), Ch I; xx Kneale and Kneale, The Development of Logic, Oxford, Oxford UP, 1962, p. 500ff.
- 44 (1963,1969), p. 16; Quine's notation is pretty close to the form used in set theory, and is now widespread among mathematicians. P.H. Matthews in his Inflectional Morphology (Cambridge, 1972), incidentally, uses:

$$(z|(z R w).(w B l).(l \in \text{VERS}))$$

for "the set of word-form z ..." (x Ch 9); the underlying idea is not far from what Quine and other scholars are talking about, except that this particular use is intended to be that of a "set".

- 45 (1958), p. 49ff, and subsequent works. Martin has been known to use other forms, e.g., ' $\lambda(\dots)$ '; and - perhaps, only once - ' $\lambda x(\dots)$ ' in his (1978).
- 46 In Principia Mathematica, commonly known as PM, p23ff, and *20.
- 47 In §3.2, we stated that all the conventions for the classical two-valued logic would be adopted for this study; that in effect would include the stratificational procedure, and would insure our system against any intrusion of antinomies. The three-variable convention, following Quine, is introduced here, however, only as a double precaution; xx Quine (1969), p. 17ff.
- 48 The simplest way to read this rule is to translate it back into the predicate form, e.g.:

$$\vdash \lambda x(Px)y \leftrightarrow Py, \dots$$

We should, of course, allow this rule to apply to individual constants as well; xx Martin (1963), p. 10f, or (1958), p. 59ff.

- 49 (Deleted)
- 50 x Copi (1979), p. 140ff; Quine (1974), p. 221.
- 51 loc.cit.; compare also the following statement: "Joan and Veronica are wearing identical dresses," or "My dear Mary! This is the exact identical dress that Miss America was wearing last night."

52 Woodger (1939), p. 32ff; Martin (1963), p. 40ff.

53 x Bibliography

54 Strictly speaking, it should be "(more-A-than-A) than", since in terms of a numerical analysis, the comparative degree would be approximated to the '(n + n)-type', e.g., "fatter" would be (fat + fat), hence the statement should read:

"x is more-A-than-A than y is A"

but such pedantry may taint probity.

55 Geach and Black translates this as 'mode of presentation' - Geach (1980), p. ix; while Martin as 'mode of linguistic description' - Martin (1981), p. 8.

56 The virtual-class inclusion is usually defined in terms of a predicate inclusion, which we did not have time for.

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PALESTINIAN ARABIC VOWELS

James Cqrmick, Birzeit University

Cowell's excellent A Reference Grammar of Syrian Arabic,¹ based on the dialect of Damascus, and published in 1964, is still the best work on the phonology, morphology, and syntax of the urban dialects of the Greater Syrian area (Western Syria, Lebanon, and Palestine). In my opinion, it has been supplemented but not surpassed by later works such as Ambros's Damascus Arabic,² published in 1977.

It might be asked, then, what the purpose of this paper is, if Cowell's work is still considered so satisfactory. Well, unlike Cowell, I intend to describe a different dialect: the educated rural sedentary dialect of the West Bank, the dialect of most of our students at Birzeit. And also unlike Cowell, I intend to describe only a small fraction of that dialect, that is the vowel system. This fraction will, however, be described in a way different from Cowell's, by making use of the vowel diagram in Gimson's An Introduction to the Pronunciation of English,³ and certain ideas and formalizations derived from the school of Generative Phonology. I hope, in this way, to achieve greater precision in my description than Cowell, and lay the basis, or at least the first stone of the basis, for future work of this sort on Palestinian Arabic (PA).

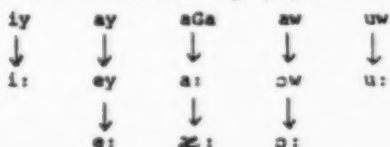
The description of the vowels will be in relation to three phonological processes: monophthongisation, centralization, and pharyngealization, which will also be the headings of the different sections:-

Monophthongization

There are five long vowels in PA, two of them being monophthongizations of Classical Arabic (CA) diphthongs:-

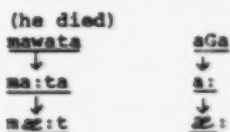
i:	ay	æ:	aw	u:
	↓		↓	
	e:		o:	

It could also be argued, on the basis of the conventional orthography, that the remaining three long vowels are themselves monophthongisations of the underlying representations in the period when the CA orthography was established:-

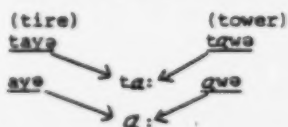


This kind of sound change is not uncommon in the evolution of languages, and analogous processes in the derivation of the modern English vowel system are extensively described by Gimson and by Chomsky and Halle in The Sound Pattern of English.⁴ In fact, there is an excellent analogy to the derivation of PA /æ:/ in the "monophthongization of /a/ and /æ/ and their coalescence with /ɑ:/,"⁵ mentioned by Gimson:-

Palestinian Arabic



Southern British English



The present reality of the PA long vowels seems to me to be similar to that described by Cowell. My account of them, however, will not be identical to his, having different examples from a different dialect, and relying on a vowel diagram for their identification rather more than on verbal descriptions. I shall also not discuss the pharyngealized equivalents of these 'plain' vowels here, preferring to leave them to the later section on pharyngealization:-

i: high front unrounded

Examples: bi:t Go home! ti:n fig

e: mid-high front unrounded

Examples: be:t house te:s billy goat

æ : mid-low front unrounded

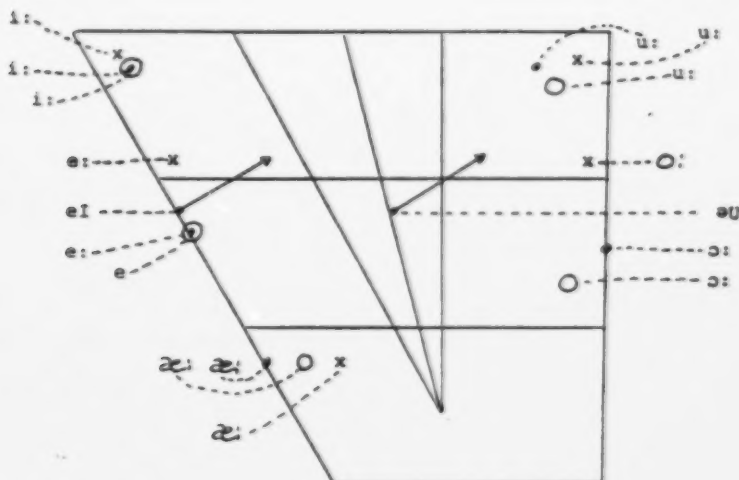
Examples: mæ:t he died tæ:ɪb he repented

ɔ: mid-low back rounded

Examples: mɔ:t death tɔ:fə toffes

i: high back rounded

examples: mu:t Go away! tu:t mulberry



x = Syrian Arabic (Cowell)

• = British English (Gimson)

O = Palestinian Arabic (this paper)

As can be seen from the diagram, the main differences between my account of PA vowels and Cowell's account of Syrian Arabic vowels appears to be the levelling (monophthongization) of the CA diphthongs. Cowell claims SA levels the CA /ay/ at a position "higher than the first part of the English a (in date)",⁵ whereas there appears to me no difference between PA /e:/ and the much lower /ɛ/ in British English bet. There is a difference in length, but that is another matter.

Equally, on the other side of the diagram, there is a wide discrepancy in the location of the levelled CA diphthong /au/. Cowell makes a claim that is true for both SA and PA, that "Long u differs markedly from the English u in goat,"⁶ but his following statement that long u "is similar to the French u in cote"⁷ appears to be only true of SA. I find the PA levelling of the CA /au/ to be even lower and slightly more central than the /o/ in British English nought.

Centralisation

The short vowels of PA strike me as being much more centralised than the SA short vowels described by Cowell. In fact, with the exception of the short vowel /ɛ/, which he describes as higher and fronter than the long vowel /æ/, the other short vowels are described as "much the same in quality"⁸ as their long counterparts. This fact could account for the discrepancy in the inventories of the short vowels in either dialect. For Cowell describes six short vowels, including /a/ as a functionally distinct vowel:-

i e ɛ o u ə

whereas I can only detect three, with the maximally central vowel /a/ as the neutralized version of them when they are unstressed:-

$$\left\{ \begin{matrix} i \\ \varepsilon \\ u \end{matrix} \right\} \rightarrow a / [-\text{stress}]$$

The non-appearance of /a/ and /o/ in the PA short vowel inventory is probably due to the centralized quality of the PA short vowels, for if /a/ and /o/ were centralized, they would come perilously near to /ɪ/ and /ʊ/ respectively, and would be barely distinguishable from them (distinctness decreasing with centralization):-

$$\begin{array}{ccccc} i & e & \varepsilon & o & u \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ i \approx e & & \varepsilon & o \approx u & \end{array}$$

Once again, what is said in this section about the PA short vowels refers to the plain versions; their pharyngealized equivalents will be discussed under the section on pharyngealization:-

I mid-high front central unrounded

Examples: sɪt lacy tɪf Spit!

ɛ mid-low front central unrounded

Examples: kɛr he brushed (sth off)

tɛf he spat

u mid-high back central unrounded

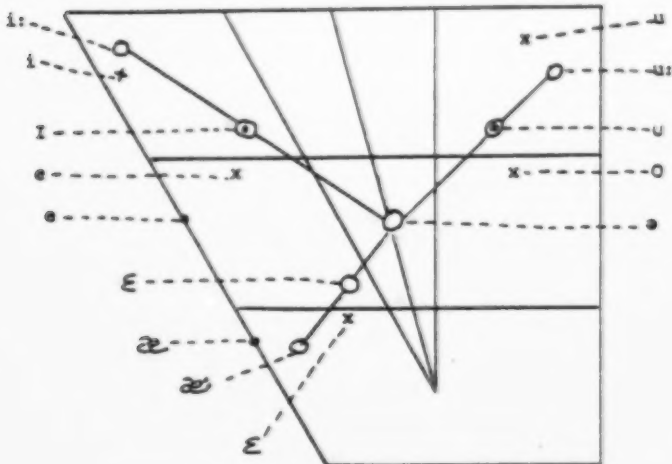
Examples: kut Brush (sth off)!

tʊk Knock (the ash off)!

a mid-central unrounded

Examples: kɔtʌ:b book
bɛstʌ:n garden

kɔmʌ:n also



x = Syrian Arabic (Cowell)

• = British English (Gimson)

O = Palestinian Arabic (this paper)

Pharyngealization

Despite Cowell's claim that "the term 'pharyngealization,' which has sometimes been used instead of 'velarization,' is even more misleading,"⁹ it has since become the commonly accepted interpretation, in phonetic terms, for what the early Arab grammarians called 'emphasis,' as a result of acoustic analyses such as that described by Al-Ani in Arabic Phonology.¹⁰

But whereas the exact area of the secondary articulation is now well established, the exact number of pharyngealized consonants in the various Arabic dialects does not seem so well established. It seems to me that pharyngealized consonants should be grouped into three categories (the constituents of which will vary for each dialect):-

1. Pharyngealized consonants like CA $\frac{g}{\text{}} \frac{d}{\text{}} \frac{t}{\text{}} \frac{d}{\text{}}$ with plain counterparts.
2. Pharyngealized consonants like CA $\frac{g}{\text{}}$ without plain counterparts.
3. Pharyngealized consonants which are only pharyngealized as a result of assimilation with a neighbouring pharyngealized consonant.

Thus, by simplifying the context to one of CVC where the first C is the consonant to be investigated, V is an a-type vowel (described to the informant merely as 'alif'), and the last consonant is a known plain consonant such as /t/, the constituents of the three categories can be discovered by going through the alphabet.

By employing this method with my informants, I reached the following conclusions:-

- a) The constituents of 1 (above) were: $\frac{g}{\text{}} \frac{d}{\text{}} \frac{t}{\text{}} \frac{d}{\text{}}$
- b) The sole constituent of 2 (above) was $\frac{t}{\text{}}$. - CA $\frac{g}{\text{}}$ was invariably fronted to a $\frac{k}{\text{}}$, which therefore took a different vowel.
- c) The labials, dentals, and palatals could all be pharyngealized by assimilation.

The next procedure was to establish the exact qualitative change involved in the pharyngealization of the vowel by assimilation to a neighbouring pharyngealized consonant, the process described in the following rule:-

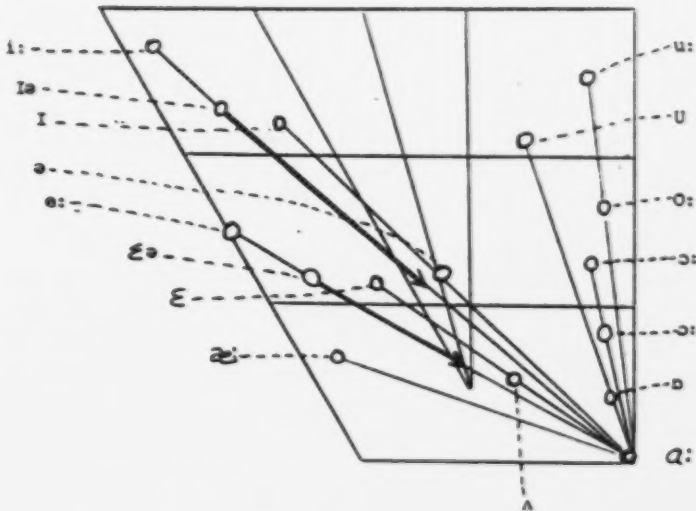
$$v \longrightarrow v / \left\{ \begin{array}{l} \text{---} \frac{g}{\text{}} \\ \frac{g}{\text{}} \text{---} \end{array} \right\}$$

This was done by having my informants read off two lists of words, all currently used in the PA dialect under investigation. The lists were constructed to contrast the vocalic environments of /t/ and /t̤/, both when the vowel preceded and when it succeeded.

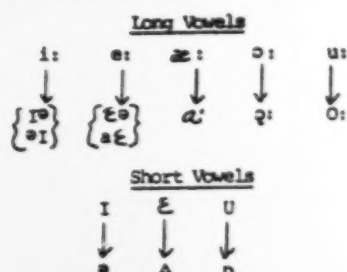
The lists were as follows:-

mulberry	توت
Go around (the Kaaba)!	طوف
toffee	توفي
collar	طوق
fig	تين
mad	طين
billy-goat	تميس
bird	طير
Spit!	تف
medicine	طب
he spat	تد
he knocked	طق
Knock (ash off)!	تك
Shoot!	طع
he repented	تاب
he went down	طاح

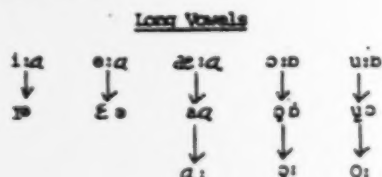
Go away!	موت
apron	لوطة
death	موت
walk	شوط
Go home!	بيت
fame	ميت
house	بيت
thread	خيوط
lady	يت
cat	كت
he brushed (sthg off)	ط
he put	ط
Brush (sthg off)!	كت
Put!	ط
he died	مات
dish	جاط



Beside Crowell's wholly inadequate description of the quality of the pharyngealized variants of the long and short vowels as "a somewhat retracted sound,"¹¹ I have tried to locate the PA vowels exactly. Obviously the movement is one of lowering and backing in the direction of /ɔ:/. The only problem appears to be one of distinctness, for if all the vowels are moving the same direction they will tend to lose their qualitative distinctness. The solution in PA seems to have been to have differential stopping points along the route to /ɔ:/, and in some cases, noticeably in the case of the long high front vowels, but also slightly apparent in the case of long high back vowels, to diphthongise:-



This diphthongisation not only overcomes the problem of indistinctness (differentiating, for example, /i:/ from /i/, which are both moving along the same track), but is also, probably, a natural result of the physical difficulty the tongue has in moving rapidly from the most high front position in the mouth to the most low back. In fact, it could be argued, as it was in the section on monophthongisation with regard to the long vowels, that the underlying representations of all these pharyngealized vowels are diphthongs, which are then monophthongised or not, differentially, to maintain maximum distinctness from each other:-



Short Vowels

I a	ɛ a	u o
↓	↓	↓
I ə	an	ɔ b
↓	↓	↓
a	ʌ	ɒ

Obviously, the direction of the diphthongal glide will depend on which element of the diphthong is contiguous with the pharyngealized consonant, that is whether the vowel is in a CVC environment or a $\text{CV}\text{C}'$ environment. This is a little tricky, however, as pharyngealization would normally spread either backwards or forwards through the vowel, thus creating a uniform pharyngealized environment: $\text{CV}\text{C}'$. There is evidence, nevertheless, that a diphthong effectively blocks the diffusion of the pharyngealization, so that we have:-

$$/\text{C}\text{a}:\text{C}/ \longrightarrow [\text{C}\text{a}:\text{C}]$$

but $/\text{C}\text{i}:\text{C}/ \longrightarrow [\text{C}\text{e}:\text{C}]$ not $/\text{C}\text{i}:\text{C}/ \longrightarrow [\text{C}\text{o}:\text{C}]$.

In conclusion, let me summarize the points I have made. Although Cowell's description of the vowels might be adequate for the urban SA dialect he has chosen, I have not found it totally adequate for the educated rural sedentary PA dialect I have chosen. Where it is precise, for example in its description of the long vowels, I have disagreed with it on the exact location of certain vowels, more particularly the vowels $/\text{e}_1/$ and $/\text{u}_1/$. Where it is imprecise, for example in its description of the pharyngealized vowels, I have attempted to provide a certain amount of precision by locating them on a vowel diagram and plotting the routes of postulated diphthongal glides down into the low back area. I have throughout also emphasized the phonological processes which I believe to be fundamental to an understanding of how the Arabic vowels have developed into their present phonetic shapes in the different Arabic dialects, that is: monophthongization, centralization, and pharyngealization.

Notes

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3. Gimson, A. C., An Introduction to the Pronunciation of English, (London: Edward Arnold, 1970).
4. Chomsky, N. and Halle, M., The Sound Pattern of English, (New York: Harper & Row, 1968).
5. Cowell, op. cit., p. 10.
6. Cowell, ibid.
7. Cowell, ibid.
8. Cowell, op. cit., pp. 9-12.
9. Cowell, op. cit., p. 6.
10. Al Ani, Sa'aman H., Arabic Phonology, (The Hague: Mouton, 1970), pp. 44-58.
11. Cowell, op. cit., pp. 9-12.

Consonant assimilation in Arabic:
an autosegmental approach

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0. Introduction

This paper deals with a number of consonant-assimilation processes in Classical and Colloquial Arabic. Both types of assimilation, partial and complete, are considered in an attempt to arrive at a generalization concerning their mode of application. It is argued, on the basis of the autosegmental approach to the underlying representation of segments and to the application of phonological rules adopted in this paper, that partial and complete assimilation rules are just two forms of the same process since they apply in the same fashion; both types of assimilation involve the transfer of one or more features of a certain segment onto an adjacent one so that the latter will become partially or totally similar to the former. The only difference between the two types of assimilation concerns their outcome: partial assimilation yields partially similar clusters whereas complete assimilation yields geminate clusters, although in some cases partial assimilation has the same result as that of complete assimilation. This difference, however, does not have any bearing on the behavior of the output of assimilation, partial or complete, towards phonological rules like epenthesis. In both cases, the derived cluster, whether geminate or nongeminate, does not undergo epenthesis although the segmental environment of the rule is met. This immunity against epenthesis is accounted for in a straightforward manner within the autosegmental framework adopted in this article. Finally, the analysis is shown to be in harmony with the Obligatory Contour Principle concerning the phonological status of the geminate consonant clusters that arise from the phonological rules of assimilation.

The paper is organized as follows: section 1 lists the major assimilatory processes that occur in Arabic. The processes are initially classified into regressive and progressive for organizational purposes. Then under each category the processes are organized into partial and complete. Section 2 provides an autosegmental analysis of assimilation where it is shown that partial and complete assimilation rules apply in the same fashion. Finally, in section 3, it is argued that this analysis of assimilation is in harmony with the Obligatory Contour Principle. To maintain this harmony in the case of partial assimilation, it is argued that partial assimilation involves the autosegmentalization of the feature or features involved in the assimilation process so that the assimilating and the assimilated consonants are now united in such a way that would prevent epenthesis from dissolving this union.

I. The assimilatory Processes

1. Regressive assimilation.

1.1. Partial assimilation.

1.1.1. Voicing.

This process turns a voiceless obstruent into voiced when it is followed by a voiced obstruent. It occurs in a number of Arabic dialects including Egyptian, Syrian and Libyan. The following examples from Egyptian Arabic illustrate this process.

- | | |
|----------------|------------------------|
| (1)a. sabaʔ-ni | "he arrived before me" |
| ʔi-sbaʔ-ni | "arrive before me!" |
| b. ʃabar | "he was patient" |
| bu-ʃbur | "he is patient" |
| c. kibiir | "great" |
| ʔagbar | "greater" |
| d. ʔabax | "he cooked" |
| maʔbax | "kitchen" |

This process is also operative across word boundary in Egyptian Arabic (Gary and Gamal Eldin 1982:127):

- | | |
|-------------------------|---------------------------|
| (2)a. ʔibnak ga ʔinta → | |
| ʔibnag ga ʔinta | "when did your son come?" |
| b. fisilix ʔaali → | |
| fisiilY ʔaali | "expensive salted fish" |

In both Syrian and Libyan the voicing rule seems to be limited to certain morphological formatives, such as the t of the 6th verbal measure or the t of the feminine and second person of the imperfect indicative form of the 4th measure (Cowell 1964:86, 179, Owens 1984:46):

- | | |
|-----------------|--------------------------------|
| (3)a. d-zakkar | "to remember" (3 m. sg.) |
| (cf. t-saamah | "to be forgiven") |
| b. bi-d-ʔiib | "to bring" (2 m. sg./3 f. sg.) |
| (cf. bi-t-ʔuuf | "to see (2 m. sg./ 3 f. sg.)" |
| c. id-ʔabbiḥ | |
| (= /it-ʔabbiḥ/) | "you slaughter many" |

1.1.2. Devoicing.

This process, which devoices a consonant when it is immediately followed by a voiceless consonant, is also common in

Arabic. It operates in the dialects mentioned in 1.1.1. and also in Jordanian Arabic (Owens and Bani Yasin 1985) and Classical Arabic (Abdo 1983). The following examples from Syrian Arabic, for instance, will illustrate this process (Cowell 1964:26):

- (4) a. #tama^cu (< /#tama^cu/) "they gathered"
 (cf. #ama^c "he gathered")
 b. ʔuuɬɬ in-noom
 (< /ʔuuɬɬ in-noom/) "the bedroom"
 (cf. ʔuuɖa "room")
 c. ʔaxatto
 (< /ʔaxad-to/) "I took it"
 (cf. ʔaxad "he took")

1.1.3. Nasal assimilation.

This process assimilates the nasal n to the point of articulation of a following bilabial. The nasal assimilation rule applies both word-internally and across word boundaries, and it operates in Classical Arabic and in many colloquial dialects as well. In the following examples from Classical Arabic, the characteristic n of the 7th measure optionally becomes m when it is followed by m (Wright 1977:65):

- (5) a. ?in-ma^haq → ?im-ma^haq "to be effaced"
 b. ?in-ma^ha → ?im-ma^ha "to be exterminated"
 c. ?in-ma^hat → ?im-ma^hat "to be torn out"
 d. ?in-ma^has → ?im-ma^has "to become smooth"

This rule is morphologically conditioned since it is limited to the morphological context indicated above.

- (6) a. ʔanmaat / *ʔanmaat "patterns"
b. ʔanmaar / *ʔanmaar "tigers"

When the n is followed by b, the rule applies regardless of the morphological context.

- (7) a. ʔal-ʔanbiyaaʔ → ʔal-ʔambiyaaʔ "the prophets"
(cf. nabiʔ "prophet")
b. ʔal-ʔanbaaʔ → ʔal-ʔambaaʔ "the news"
(cf. nabaʔ "a piece of news")

In Libyan Arabic the nasal-assimilation rule has been extended so that the n also assimilates to the point of articulation of a following velar or labio-dental (Owens 1984:46):

- | | |
|-------------------------|-----------------------|
| (8)a. inkitab → iŋkitab | "it (m.) was written" |
| b. ingaṣaṣ → iŋgaṣaṣ | "he was deceived" |
| c. inguulu → iŋguulu | "we say" |
| d. inbina → imbina | "it was built" |
| e. infattiṣ → iŋfattiṣ | "I look for" |

1.2. Complete assimilation rules.

1.2.1. Definite-article assimilation.

This process is quite common in Arabic. It applies in all Arabic dialects as well as in Classical Arabic (Wright 1977, Cowell 1964, Broselow 1976, Owens 1984, Owens and Bani Yasin 1985). The main function of this rule is to completely assimilate the definite article l to any following [+coronal] consonant, as the following examples from Syrian show (Cowell 1964:493):

- | | |
|-----------------|-----------------|
| (9)a. s-ṣaff | "the row" |
| b. t-taalit | "the third" |
| c. ṣ-ṣooraba | "the soup" |
| d. s-smiike | "the thick" |
| e. ṣ-ṣrasim | "the drawing" |
| f. d-daṭiṭ | "the fine" |
| g. l-lhaaf | "the quilt" |
| h. ṣ-ṣamīl | "the pretty" |
| i. ṣ-ṣaalib | "the student" |
| j. z-zaki | "the bright" |
| k. ṣ-ṣaabit | "the officer" |
| l. d-daḥuuk | "the jolly" |
| m. n-nabaatiyye | "the vegetable" |
| (10)a. l-walad | "the boy" |
| b. l-bint | "the girl" |
| c. l-ḥalam | "the flag" |
| d. l-ḥalam | "the pencil" |
| e. l-faras | "the horse" |

- | | |
|-------------------------|------------|
| f. l-ka ^c ib | "the heel" |
| g. l-malik | "the king" |

In Syrian the rule seems to be optional before the consonant ʕ; one may sometimes hear, for instance, l-ʕibne "the cheese" instead of f-ʕibne.

In Egyptian the environment of the definite article assimilation rule has been extended to include velar stops (Gary and G. Eldin 1982:127):

- | | |
|-----------------|--------------|
| (11)a. k-kalaam | "the speech" |
| b. k-koora | "the ball" |
| c. g-gidiid | "the new" |
| d. g-goon | "the goal" |

In Classical Arabic the rule was extended to the consonant l in words like hal (interrogative particle) and bal "even, but," when it is followed by r (Wright 1977:15):

- | | |
|----------------------|----------------|
| (12)a. hal-raʔayta → | |
| har raʔayta | "Did you see?" |

1.2.2. t-assimilation.

The formative t, which stands for the second masculine singular or the third feminine singular subject, is completely assimilated to a following /+ coronal/ obstruent in a number of colloquial Arabic dialects, including Egyptian, Jordanian, and Syrian.

- | | |
|------------------|------------------|
| (13)a. bi-z-ziid | "to increase" |
| b. bi-ʕ-ʕiib | "to bring" |
| c. bi-ʕ-ʕuuf | "to see" |
| d. bi-ʕ-ʕubb | "to pour" |
| e. bi-d-dall | "to remain/stay" |
| f. bi-d-diss | "to insert" |
| (14)a. bi-t-limm | "to collect" |
| b. bi-t-fiiʔ | "to wake up" |
| c. bi-t-ruuʕ | "to go" |

This rule, like the definite-article assimilation rule, has also been extended in Egyptian Arabic to apply before velar stops (Gary and Gamal El-din 1982:127):

(15)a. ʔit-gawwiṣ → ʔig-gawwiṣ "he got married"

b. ʔit-kallim → ʔik-kallim "he spoke"

The rule has also been extended to apply to other t's in Egyptian:

(16)a. sa^Cat kitiira → sa^Cak kitiira "many watches"

b. ʔagat gamiila → ʔagag gamiila "beautiful things"

1.2.3. Nasal assimilation.

In Classical Arabic the nasal consonant n is completely assimilated to a following glide or liquid (Wright 1977:15):

(17)a. ʔan yaqtulu → ʔay yaqtulu

b. ʔinwahab → ʔiwahab

c. min laylin → millaylin

d. min rabbihi → mir rabbihi

In addition, n is realized as m when followed by m (Wright 1977:65):

(18)a. kitaabun mubiinun → kitaabum mubiinun

b. min ma → mim ma

c. ʕan ma → ʕam ma

d. ʔimmaḥaqa → ʔimmaḥaqa

e. ʔimmaḥa → ʔimmaḥa

The same process is observed in some colloquial dialects like Syrian (Cowell 1964:27,179) as in ʔaḥsallak (</ʔaḥsanlak/) "better for you" or r-raḥ (</n-raḥ/) "if he goes," Libyan (Owens 1984:46) as in ir-riid (</in-riid/) "I want" or illi^Cab (</inli^Cab/) "it was played," and Jordanian (Owens and Bani Yasin 1985:4) as in ir-rabat (</in-rabat/) "be tied up" or immasak (</in-masak/) "be caught."

1.2.4. Glide assimilation.

This process, which most commonly occurs in Classical Arabic, assimilates the glides y and w to a following t. It is morphologically conditioned as it applies only in certain morphological contexts. For instance, in the 8th verbal conjugation, w and y are assimilated to the characteristic t of that conjugation, thus producing tt for wt or yt (Wright 1977:80):

- (19)a. ʔiɣtaʕada) → ʔittaʕada "to receive a promise"
 ʔiwaʕada)
 b. ʔiɣtasara) → ʔittasara "to play at hazard"
 ʔiwtasara)

1.2.5. Dental assimilation.

In Classical Arabic the dentals ʕ, d, ɗ, ɗ̣, ɗ̥, and ɗ̧ are completely assimilated to a following t in certain parts of the verb (Wright 1977:16):

- (20)a. labiʕtu → labittu
 b. ʔaradta → ʔaratta
 c. ʔattaxadtum → ʔattaxattum
 d. basattum → basattum

1.2.6. Other assimilatory processes.

The following two rules that apply in Jordanian Arabic are reported in Owens and Bani Yasin (1985:6). The first assimilates the consonant l to a following n:

- (21)a. ɣulna → ɣunna "we said"
 b. ʔaabilni → ʔaabinni "he brought (for) me"
 c. ʔaalna → ʔaanna "ourselves"
 d. miʕilna → miʕinna "like us"

The second rule assimilates the voiced stop g to a following n.

- (22)a. ʕind-na → ʕinna "at us"
 b. bidd-na → binna "we want/must"

2. Progressive assimilation.

2.1. Partial assimilation.

2.1.1. Velarisation.

The characteristic t of the 8th conjugation of the verb in Classical Arabic becomes emphatic ṭ if the first root consonant is emphatic (Wright 1977:67):

- (23)a. ʔiʕtabara → ʔiʕṭabara (root = ʕ - b - r)
 b. ʔiʕtarada → ʔiʕṭarada (" = ʕ - r - d)
 c. ʔiʕtalama → ʔiʕṭalama (" = ʕ - l - m)
 d. ʔiʕtaʕa → ʔiʕṭaʕa (" = ʕ - ʕ - ʕ)

2.1.2. /ʔ/-assimilation.

The glottal stop in Classical Arabic is optionally changed into the glide w or y if preceded by the high vowel u or i, respectively, and followed by a or aa (Wright 1977:18):

- (24) a. ʃuʔan → ʃuwan
 b. suʔaal → suwaal
 c. miʔa → miya
 d. liʔaam → liyaam

In cases where /ʔ/ is preceded by uu, ii, or ai, it becomes w or y whatever be the following vowel:

- (25) a. maqruuʔa → maqruuwa (→ maqruwwa)
 b. nabiiʔu → nabiiyu (→ nabiiyyu)
 c. faiʔin → faiyin (→ fayyin)

In other words, the stem-final /ʔ/ assimilates to the roundness properties of the preceding high vowel in the contexts mentioned above, thus becoming y or w.

2.1.3. Voicing assimilation.

The characteristic t of the 8th verbal conjugation in Classical Arabic is voiced if preceded by d or z (Wright 1977:66):

- (26) a. ʔistaʔara → ʔizdaʔara (root = z - ʕ - r)
 b. ʔistaada → ʔizdaada (" = z - w - d)
 c. ʔidtakara → ʔiddakara (" = d - k - r)
 d. ʔidta^Ca → ʔidda^Ca (" = d - ^C - y)

That is, when the first root consonant is voiced z or d, the infix t in the 8th verbal conjugation becomes voiced.

This same process is also operative in the same context in colloquial dialects like Syrian (Cowell 1964:100):

- (27) a. zdaad "to increase" (root = z - w - d)
 b. zdara "to scorn" (" = z - r - y)
 c. dda^Ca "to claim" (" = d - ^C - y)
 vs. d. ftara "to lie/fabricate" (" = f - r - y)
 e. ʕtara "to buy" (" = ʕ - r - y)
 f. stawa "to ripen" (" = s - t - w)

2.2. Complete assimilation.

2.2.1. ʔ-assimilation.

The glottal stop in Classical Arabic may change into the glide y if preceded by the glide y (Wright 1977:18):

- (28) a. šayʔin → šayyin "something (gen.)"
 b. šayʔan → šayyan "something (accus.)"

It may also change into a vowel homogeneous with the preceding vowel when it is followed by a consonant:

- (29) a. raʔs → raas "head"
 b. loʔm → loom "meanness"
 c. biʔr → biir "well"

2.2.2. Glide assimilation.

The glide w or y in Classical Arabic may change into a vowel homogeneous with the preceding vowel (Abdo 1983:207):

- (30) a. miwzaan → miizaan "scale"
 b. muyqin → muuqin "sure"

2.2.3. h-assimilation.

/h/ in Libyan Arabic is completely assimilated to a preceding voiceless sound if the sound is non-geminate

(Owens 1984:46):

- (31) a. šok-ha → šok-ka "its (f.) thorns"
 b. šifit-hum → šifit-tum "I saw them (m.)"
 c. šamis-ha → šamis-sa "its sun"
 vs. d. daff-ha → *daff-fa "he pushed it (f.)"

The same rule also applies in Jordanian Arabic (Owens and Bani Yasin 1985:5):

- (32) a. binit-hum → binit-tum "their (m.) daughter"
 b. šaaf-hin → šaaf-fin "he saw them (f.)"

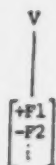
II. Analysis.

The present analysis of consonant assimilation in Arabic is based on the autosegmental approach to the representation of sounds at the underlying level as put forward in Goldsmith (1976) and Clements (1976) and as further enriched and expanded to account for non-tonal phenomena in works such as McCarthy (1979, 1981, 1982), Halle and Vergnaud (1980, 1981), Leben (1980), and more recently in Clements and Keyser (1983). It is generally held

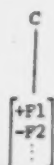
that sounds at the underlying level are defined in terms of unordered sets of specified features, each sound being represented in the form of a matrix of distinctive features having specified values. This layer of distinctive feature matrices is commonly referred to as the segmental tier. This tier is linked by means of association lines to another tier called the CV-tier whose vocabulary consists solely of C and V elements. The CV-tier mediates between the segmental tier and a third tier called the syllable tier whose vocabulary consists merely of the single element σ (for more details about these tiers and others, see Clements and Keyser 1983). For purposes of this study, I will focus on just two tiers, the segmental tier and the CV-tier, since the other tiers are not directly relevant to the present analysis.

Short segments, within this framework, are given the following representations where a single feature matrix is linked to just one element of the CV-tier:

(33)a. short vowel

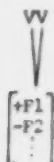


b. short consonant

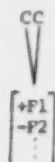


Long segments, on the other hand, have the following representations where a feature matrix is associated with two identical and adjacent elements of the CV-tier (Leben 1980):

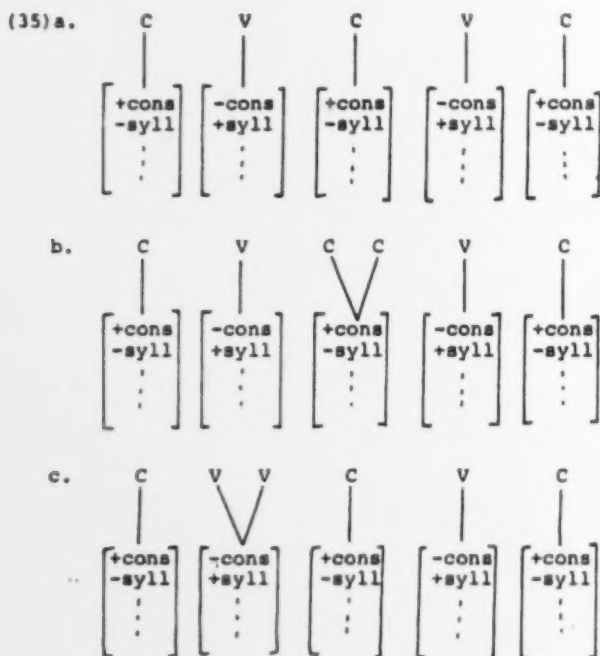
(34)a. long vowel



b. long consonant



Consequently, words like katab 'he wrote', kattab 'he made (someone) write', and kaatab 'he corresponded' will have the following partial underlying representations, respectively:



One of the advantages of this multi-tiered approach to the underlying representations of utterances is that it enables us to account for certain phonological phenomena in a straightforward manner; it also simplifies the statement of certain phonological rules. For instance, there is an epenthesis rule in Arabic that breaks up consonant clusters by inserting a high front vowel within the cluster. In Palestinian Arabic, for example, a word-final two-consonant cluster is broken up by

inserting the vowel /i/ between the two members of the cluster. In three-consonant clusters the vowel is inserted before the last two consonants (Brame 1974:41):

- | | |
|----------------|-------------|
| (36)a. katabit | 'I wrote' |
| b. ʔalabit | 'I ordered' |
| c. ʔabilna | 'before us' |
| d. ʔibirna | 'our ink' |

However, when the consonant cluster consists of or includes two contiguous identical consonants, epenthesis does not apply:

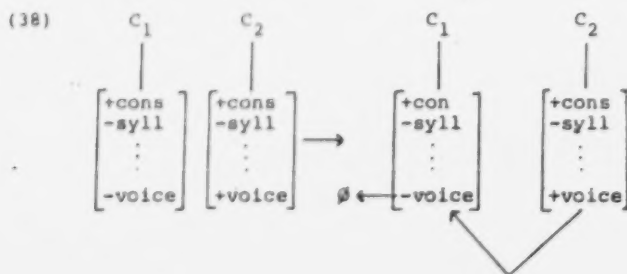
- | | |
|--------------------------|--------------------------|
| (37)a. ʔimm / *ʔimim | 'mother' |
| b. ʔimm-na / *ʔimim-na | 'our mother' |
| c. sitt / *sitit | 'grandmother' |
| d. sitt-kum / *sitit-kum | 'your (pl.) grandmother' |

To ensure that epenthesis does not apply to such geminate clusters, Brame offers two possible proposals. The first is to add a condition to the statement of the rule so as to exclude such clusters from the epenthesis domain, and the second is to add a general rule of gemination to the grammar so as to turn clusters of two identical consonants into single geminate or long consonants. He adopts the second alternative, although he says that both analyses are possible.

The multi-tiered approach to the underlying representation of sounds accounts satisfactorily for these two points. First, no condition will be added to the statement of the epenthesis rule since the rule will automatically not apply to the geminate or long consonant due to its representation by a single feature matrix on the segmental tier; the rule will only apply to clusters of consonantal feature matrices. Second, no additional rule of gemination will be added to the grammar since there are no sequences of identical matrices on the segmental tier; the

grammar of Arabic is thus simpler under the multi-tiered analysis than a grammar having one more rule since it achieves what the second grammar does without having that extra rule.

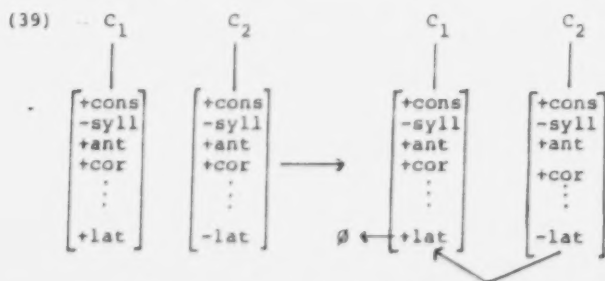
Given this approach to the underlying structure of utterances, we can now discuss the consonant-assimilation procedure. As mentioned earlier, partial assimilation processes involve transferring one or more features of a segment onto the feature matrix of an adjacent segment so that the former segment will become partially similar to the latter. The transfer of any particular feature from one matrix onto another implies, of course, that the feature in question in the affected matrix is deleted before or simultaneously with the process of copying the same feature of the controlling matrix with its specified value. Regressive voicing, for instance, requires substituting the feature [+voice] for the feature [-voice] when the segment specified for the latter feature is immediately followed by a voiced obstruent. All the remaining features of the assimilated segment remain intact. This process can be formally represented as follows:



That is, the feature [+voice] of C_2 is extended to the preceding matrix and, as a result, the feature [-voice] of C_1 is deleted.

Complete assimilation processes are accounted for in a similar way. Initially one may think that complete assimilation is different from partial assimilation in the number of features involved in the assimilation process, in the sense that complete

assimilation involves changing more features than in the case of partial assimilation. This, however, is not always the case. There are cases where partial assimilation involves changing more features than in the case of complete assimilatory processes. Consider, for instance, the complete assimilation of the definite article /l/ to a following /r/ in contrast with the partial assimilation of /n/ to a following velar. Given the SPE system of distinctive features, /l/ and /r/ differ only in the feature [+lateral]: /l/ is [+lateral] whereas /r/ is [-lateral]. Thus the assimilation of /l/ to /r/ will just involve replacing the feature [+lateral] in the feature matrix of /l/ by the feature [-lateral]. The partial assimilation of /n/ to /ŋ/ before velars, on the other hand, will involve changing at least four features in the feature matrix of /n/: the features [-high], [-back], [+anterior], and [+coronal] are changed to [+high], [+back], [-anterior], and [-coronal], respectively. It is clear then that complete and partial assimilation rules are basically similar, and that they are achieved by the same mechanism that extends certain features of one feature matrix onto a neighboring matrix. The complete assimilation of /l/ to /r/ will consequently be similar to the partial assimilation in (38):



However, partial and complete assimilation rules differ in just one point, i.e., their outcome. Generally, partial assimilation results in consonant clusters having some features in common; complete assimilation, on the other hand, results in clusters of identical consonants. These identical consonant

This parallel behavior of underlying and derived geminate consonant clusters with respect to the epenthesis rule suggests that the two types of clusters should have identical representations when epenthesis comes to apply. This is achieved by having a general rule in the grammar of Arabic to collapse sequences of contiguous identical consonants into single long consonants whenever they arise in the phonological derivation (Brame 1974, Abu-Salim 1980). In the present approach to the representation of utterances, this rule is realized in two steps (cf. Ingria 1980, Kenstowicz 1982). First, the derived geminate cluster undergoes a segmental rule of degemination whereby one member of the cluster is deleted. This rule results in having a C element on the CV-tier unassociated with any feature matrix, as shown by the formulation of the degemination rule below:

$$(42) \quad \begin{array}{ccc} C & C & \\ | & | & \\ [\alpha F's] & [\alpha F's] & \end{array} \longrightarrow \begin{array}{cc} C & C \\ & | \\ & [\alpha F's] \end{array}$$

Second, the resulting structure is corrected by linking the unassociated C to the feature matrix associated with the following C. This linkage is necessitated by one of the well-formedness conditions (WFC) of the autosegmental theory whereby the elements of one tier must all be associated with elements of the neighboring tier. This will give the following realization for the output of rule (42):

$$(43) \quad \begin{array}{ccc} C & & C \\ & \diagdown \quad \diagup & \\ & [F's] & \end{array}$$

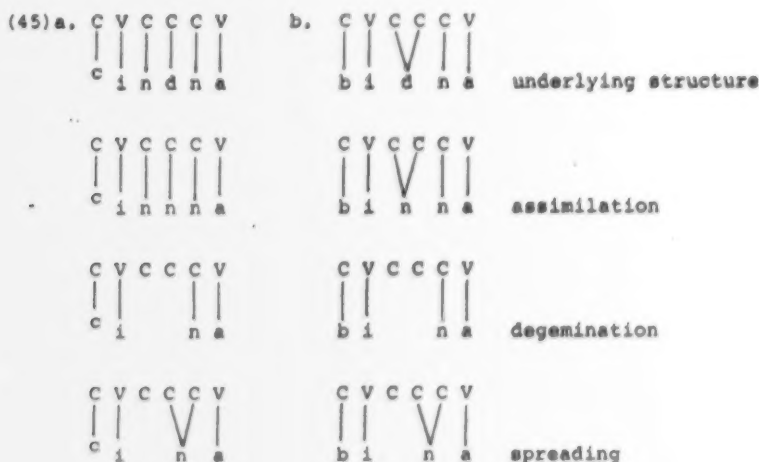
To see how this analysis works, consider the derivation of examples like š-šams (ʔ/1-šams/) 'the sun':

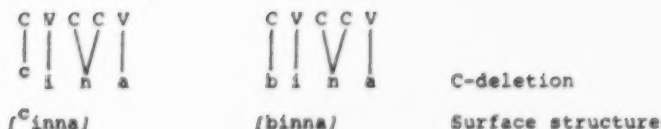
- (44)
- | | | | | | |
|---|---|---|---|---|-------------------------|
| C | C | V | C | C | a) underlying structure |
| | | | | | |
| l | h | a | m | s | |
-
- | | | | | | |
|---|---|---|---|---|--------------------------|
| C | C | V | C | C | b) definite-article ass. |
| | | | | | |
| h | h | a | m | s | |
-
- | | | | | | |
|---|---|---|---|---|-----------------|
| C | C | V | C | C | c) degemination |
| | | | | | |
| h | a | m | s | | |
-
- | | | | | | |
|---|---|---|---|---|----------------------|
| C | C | V | C | C | d) WFC (= spreading) |
| | | | | | |
| h | a | m | s | | |

To sum up, we have seen that this multi-tiered analysis of assimilation accounts neatly for the parallel behavior of underlying and derived geminate consonant clusters by assigning them the same structural representation that phonological rules like epenthesis refer to.

This multi-tiered analysis also accounts for the inapplicability of assimilation in words like daff-ha (3ld). The sound /h/ fails to assimilate to the preceding voiceless sound because the latter is long. This is due to the unavailability of a three-way length contrast in Arabic sounds. Consonants and vowels are either short or long; there are no overlong segments. Consequently, there are no cases where one feature matrix is associated with three or more positions on the CV-tier. This is accounted for by imposing a constraint on phonological representations prohibiting the association of one feature matrix with more than two positions on the CV-tier.

Evidence for this constraint is provided by examples such as (22a,b). The output of assimilation in these examples is expected to be *ḥinnna* and *binna* with an overlong *n*, but the actual output is *ḥinna* and *binna* with a simple long *n*. There may be some disagreement on the proper analysis of these examples (cf. *ḥinidna* / **ḥininna* with an epenthetic vowel before *d* and with no assimilation, and *bid-na* / *bin-na* with a short *d* before the suffix *-na* in some varieties of Jordanian and Palestinian Arabic). But given these words as they are reported above, the grammar of Arabic would involve a convention, possibly universal, as part of the word-structure building mechanism to delete any slot on the CV-tier that is left unassociated with any feature matrix on the segmental tier after the association between the two tiers is performed following degemination. The basic function of this convention concerning assimilation is thus to maintain the constraint mentioned above. The derivation of *ḥinna* and *binna* would consequently proceed as follows:





When assimilation applies in (45a), the sound d becomes identical with the surrounding consonants, so that a three-consonant geminate cluster is created. Degemination applies, deleting iteratively the first two feature matrices of the cluster. This is followed by linking the remaining feature matrix of the cluster with the closest unassociated C slot. No further linking is allowed because of the constraint mentioned above, so that the initial C of the cluster is left unassociated. This situation invokes the deletion convention, thus the stranded C is deleted, which gives us the correct output inna. The same process is performed in (45b) to give us the correct output binna.

III. Assimilation and the Obligatory Contour Principle (OCP)

We have seen in the preceding section that the geminate consonant clusters that arise from the phonological rules of assimilation are transformed into long consonants having the same representation as that of the underlying long consonant. This is motivated, as argued above, by the parallel behavior of underlying and derived long consonants regarding epenthesis. This analysis is in harmony with Leben's (1980:507) extension of the OCP whereby sequences of identical segments are automatically transformed, when they arise at any stage in the phonological derivation, into single segments on the segmental tier associated with two contiguous identical positions on the CV-tier (i.e., the representations in (34) above).

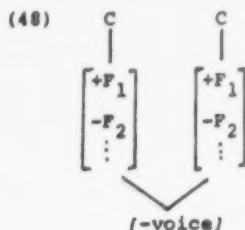
It is interesting to notice that the spirit of the OCP is also observed in the case of partial assimilation. Consonant clusters that are usually dissolved by epenthetic vowels remain intact if any member of the cluster undergoes a partial assimilation rule, thus acquiring one or more features of the other member of the cluster, as illustrated by the following examples, where the epenthetic vowel is underlined:

- (46) a. sabit 'Saturday'
 b. sapt
 c. *sapit
- (47) a. l-ʔudis 'Jerusalem'
 b. l-ʔuts
 c. *l-ʔutis

The (a) examples show that the final consonant cluster is broken up by the epenthetic vowel /i/. Since epenthesis is optional in these examples, the rule may not apply, which creates the proper environment for the regressive devoicing rule. This rule will devoice the first member of the cluster under the influence of the following voiceless sound. Once this devoicing has taken place, the epenthesis rule will no longer have a chance to apply to the final consonant cluster, as evidenced by the unacceptable (c) forms.

This immunity of the (b) forms in (46-47) to epenthesis may be explained in a straightforward manner within the framework adopted in this article. We have seen in the preceding section that when two adjacent feature matrices become identical as a result of assimilation, one matrix is generalized by linking it to the two corresponding C positions on the CV-tier after deleting the second matrix. In a similar fashion, when a segment undergoes partial assimilation so that it becomes partially identical with

a neighboring segment, the feature or features involved in the assimilation process are autosegmentalized and linked to both feature matrices. The final consonant cluster in the (b) examples in (46-47) above will consequently have the following structure after assimilation has applied:



This autosegmentalization of the feature *[-voice]* and its subsequent linking with the two feature matrices will now protect the consonant cluster against epenthesis and save the effects of assimilation which would otherwise be undone if epenthesis were to apply. In other words, the two feature matrices are now united by the feature *[-voice]*, and this union, as in the case of long consonants, is not subject to dissolution by the epenthesis rule.

The autosegmentalization of features described above is not to be understood as a process by which the features common to two adjacent matrices are factored out and treated as autosegments associated with both matrices; it is limited to just those features that are involved in the assimilation process. The following examples show that voiceless or voiced consonant clusters that do not undergo assimilation are not immune to epenthesis:

(49)a. taxit	'bed'
b. ta ^h it	'below'
c. ?ibin	'son'
d. baYil	'mule'
e. ?amin	'security'

To sum up, we have seen that partial and complete assimilation rules apply in the same fashion. Both involve the generalization of some or all features of the assimilating segment so that this segment and the assimilated one will come to share those features. In complete assimilation, this is realized by applying a segmental rule of degemination after assimilation, deleting one feature matrix and then associating the remaining matrix of the cluster with the two corresponding C positions on the CV-tier. In partial assimilation, on the other hand, the triggering features of the assimilating segment are autosegmentalized and linked to the feature matrices of the assimilating and assimilated segments. This is motivated by the behavior of the output of both types of assimilation towards epenthesis.

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